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A
DESCRIPTION
OF THE
MINERALS
IN THE
LESKEAN MUSEUM.

By DIETRICH LUDWIG GUSTAVUS KARSTEN,

PHILOSOPHIÆ DOCTOR, INSPECTOR GENERAL OF THE
MINES ROYAL OF PRUSSIA, PROFESSOR OF MINERALOGY
IN THE MINING ACADEMY AT BERLIN, SUPERINTEN-
DANT OF THE ROYAL MUSEUM, MEMBER OF THE
SOCIETY FOR PROMOTING THE SCIENCE OF MINING,
&c. &c. &c.

TRANSLATED

By GEORGE MITCHELL, M.B.

VOL. II.
CONTAINING THE
GEOLOGICAL, GEOGRAPHICAL, AND
ECONOMICAL COLLECTIONS.

DUBLIN:

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III.

GEOLOGICAL COLLECTION.

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III.
GEOLOGICAL COLLECTION.

G.

FIRST CLASS.

PRIMÆVAL ROCKS.

I. GRANITE.

A. Agreement of the Constituent Parts.

a. Similarly Grained.

- 1 Large grained Granite, with much Quartz and Felspar ; from Konigshain in Upper Lusatia.
- 2 Coarse grained Granite with some long grained Mica ; from Carlsbad in Bohemia.
- 3 Granite, which is intermediate between coarse and small grained ; from Konigshain.
- 4 Similar Granite, but in some places a little unequally Grained ; from Bauzen.
- 5 Small grained Granite ; from Suhme.
- 6 Fine grained Granite, somewhat approaching the unequally Grained ; from Konigshain.
- 7 Very fine grained Granite, forming a vein in large-grained ditto of the following variety.

b. Dissimilarly Grained.

- 8 Very large grained Granite, with small grained Quartz and Mica ; from Konigshain.

9 Somewhat

- 9 Somewhat smaller, large grained Granite ; traversed by fine-grained of the foregoing variety ; from the same place.
- 10 Very coarse grained Granite, but in which the Mica alone is small-grained ; from Geier.
- 11 Coarse-grained Granite, with inlaying somewhat long-grained Mica ; from Russia.
- 12 Much smaller coarse-grained Granite, with nearly fine-grained Mica ; from Schulberg near Konigshain,
- 13 Small-grained Granite mixed with fine-grained, and infused inlaying coarse-grained Felspar, as also coarse-grained Quartz ; from the Eilfuhre near Flinsberg.
- 14 Fine-grained Granite, with small-grained Mica, forming a vein in coarse-grained of the foregoing kind ; from Konigshain.

B. *Colour of the Constituent Parts.*

a. *Of the Felspar.*

- 15 Granite with milk-white Felspar, wherein the Quartz is yellowish grey, and the Mica brownish black ; from Dürkungen in the Co. of Glaz.
- 16 Granite with yellowish white Felspar, in some places slightly decomposed, in other respects on the whole constituted as the foregoing ; from Schreibershau in Silesia.
- 17 Granite with ochre yellow Felspar ; from Konigshain.
- 18 Large-grained Granite with greenish white Felspar, and traversed by fine-grained, in which the Felspar is reddish white ; from the same place.
- 19 Granite with greenish grey Felspar, dark grey Mica, and bright grey Quartz ; from Gorliz.
- 20 Granite with reddish white Felspar, smoke grey Quartz, and dark grey Mica ; from Altenberg.
- 21 Granite with dark carnation red Felspar and very long-grained Mica which passes into Hornblende ; from the celebrated Quarry, 10 Wersts from Petersburg.
- 22 Granite with milk white Felspar spotted with red ; from the same place.

b. *Of*

b. Of the Quartz.

- 23 Granite with greyish white Quartz; from Upper Lusatia.
- 24 Granite with yellowish grey Quartz; from the confines of Silesia.
- 25 Granite with smoke grey Quartz; from Bauzen.

c. Of the Mica.

- 26 Granite with silvery white Mica; from Konigshain.
- 27 Granite with dark greenish grey Mica; from Bohemia.
- 28 Granite with yellowish grey Mica from Konigsbruck in Upper Lusatia.
- 29 A piece of Granite with dark Pinchbeck brown Mica; from Frauenstein on the Bohemian confines.
- 30 Granite with black Mica; from Bauzen.

*C. Proportion of the Constituent Parts
(with respect to Quantity.)*

- 31 Granite in which a perfect equality subsists between the three constituent parts; from Bauzen.
- 32 Granite with more Quartz and Felspar than Mica; from Bohemia.
- 33 Granite with somewhat more Felspar than Mica and Quartz.
- 34 Granite with a large proportion of Felspar, some Mica, and a little Quartz; from Schmeideberg in Silesia.
- 35 Granite with an exceeding large quantity of Felspar and some Quartz, but very little Mica, traversed by fine-grained in which the proportion of the constituent parts is reversed; from Konigshain.
- 36 Granite with a large quantity of Felspar and Quartz, but extremely little Mica; from Wurzen.
- 37 Granite with very much Quartz, little Mica, and very little Felspar; from Bernstadt in Upper Lusatia.
- 38 Fine-grained Granite with an extremely large proportion

tion of Quartz, little Mica, and very little Felspar; also with an inverted order of the foregoing, with adhering coarse-grained of another proportion; from Upper Lusatia.

- 39 Granite with much Mica, a good deal of Felspar, and some Quartz; found between Freiberg and Frauenstein.
- 40 Granite with much Mica and Quartz, but with little Felspar.
- 41 A piece of Granite with an exceeding large quantity of Mica and Quartz intimately mixed, and extremely little Felspar.

Rem. It is part of a Boulder from Upper Lusatia, in which the Mica approaches very nearly to Hornblende.

D. *Transitions of Granite.*

- 42 Granite whose appearance on the whole is tolerably flaty; from Dittersbach in Upper Lusatia.
- 43 Granite very flaty, approaching pretty nearly to Gneiss; from Savoy.
- 44 A perfect medium between coarse-grained Granite and thick fibrous Gneiss; from Oberneuschönberg on the confines of Bohemia.
- 45 An intermedium between Granite and Porphyry; from the vicinity of Altenberg.

Rem. This transition originates from the great abundance of the Felspar, and the intimate union of the Quartz with the Mica, forming a sort of cement or basis.

E. *Decomposition of Granite.*

- 46 A piece of Granite in which the Felspar has lost a very minute portion of the water of crystallization only; from Upper Lusatia.
- 47 Granite with Felspar somewhat farther decomposed; from Königshain.
- 48 Granite with Felspar considerably decomposed; from the same place.
- 49 Granite, on one side of which the Felspar is decomposed almost entirely to Porcelain Clay, but on the other,
not

not quite so much decomposed; from the County of Glaz.

- 50 Granite in which the Mica is decomposed into Steatite, but the Felspar very slightly; from Siberia.
- 51 Granite with the Mica and Felspar quite decomposed; from the vicinity of Meissen.
- 52 Granite with almost perfectly decomposed Mica, and Felspar slightly so; from Kiphaüser in Thuringia.
- 53 Granite with entirely decomposed Mica, in which on the other hand the Felspar still retains its perfect lustre; from the Altaischen Mountains.

Rem. This is extremely rare, as the Felspar is by far most subject to decay.

F. *Mixed with other Fossils.*

a. *Intimately.*

- 54 Exceedingly Ironshot Granite; from Seifenberg in Upper Lusatia.
- 55 Granite slightly penetrated by calcareous particles; from Thuringia.

b. *Visibly.*

- 56 Quartz Crystals which are found in Granite; from Upper Lusatia.
- 57 Granite intermixed with Fluor Spar; from Geier.

G. *Mineral and Fossil Veins traversing Granite.*

- 58 Coarse-grained Granite intersected by a vein of fine-grained two inches broad; from Upper Lusatia.
- 59 Granite forming the walls of a Hornstone and Quartz vein, with disseminated White Cobalt Ore; from Schneeberg.
- 60 Granite with an adhering vein of Siderocalcite; from the same place.

- 61 Very Ironshot Hornstone with some adhering Granite; from Schneeberg.
- 62 Very Ironshot Hornstone pervaded with still more numerous particles of Iron; from the same place.
- 63 Reniform Red Hæmatites; from the same place.
- 64 Similar Brown Hæmatites, on compact Brown Iron Stone; from the same place.
- 65 Coarsely disseminated compact Brown Iron Stone, in Quartz; from Geier.
- 66 Very thickly and very fine disseminated Tin Stone, in Quartz; from Altenberg.
- 67 Exceeding finely disseminated Tin Stone in the same matrix, but with visible particles of Mica; from the same place.
- 68 Exceeding finely and sparingly disseminated Tin Stone, in similar Quartz.
- 69 A Quartzey Veinstone, mixed with some Hornblende and Lithomarga, out of Granite; from the same place.
- 70 A Quartzey Veinstone with superficial specular Iron Ore; from the same place.

H. *With other Rocks.*

- 71 Large-grained Granite intermixed with Schistose Hornblende; from Geier in the Erzgebirge.

2. SIENITE.

A. *Varieties arising from the Grain.*

- 72 Large-grained Sienite; from Scharfenberg near Meissen.
- 73 Coarse-grained Sienite; from Norway.
- 74 Tolerably small-grained Sienite; from Scharfenberg.
- 75 Actually small-grained Sienite, but with insulated inlaying coarse-grained Felspar; from the same place.
- 76 Very fine-grained Sienite, with solitary coarse grains of Mica; from Baden-Durlach.

B. *Varieties*

B. *Varieties according to the Proportion of the Constituent Parts.*

- 77 Sienite with very much Felspar and equal parts of Quartz and Hornblende; from Scharfenberg.
- 78 Sienite with very much Felspar, some Quartz, and a little Hornblende; from the same place.
- 79 Sienite with a large quantity of Hornblende and Felspar, and but little Quartz; from the same place.
- 80 A piece of Sienite with more Quartz and Hornblende than Felspar; from Steiermark.

D. *Decomposition of Sienite.*

- 81 A piece of Sienite, the Felspar of which, in spots only, is very slightly affected.
- 82 Sienite with Felspar in some places far decomposed, and an accidental admixture of green Actynolite; from the vicinity of Brokken in the Hartz.

3. GNEISS.

A. *Varieties according to the thickness of the Fracture.*

- 83 Very thick fibrous Gneiss; from the Goldbrun in Thuringia.

Rem. It is there considered by many as a Granite.

- 84 Thick fibrous Gneiss; from Lösnitz near Freiberg.
- 85 Tolerably thin slaty Gneiss; from Freiberg.
- 86 Still thinner slaty Gneiss; from Kemnitz near Freiberg.
- 87 Extremely fine slaty Gneiss; from the Old Hope at Grossvoigtsberg near Freiberg.

Rem. It very nearly approaches to Schistose Hornblende.

B. *Varieties with respect to the direction of the Fracture.*

- 88 Tolerably straight slaty Gneiss; from Lösnitz.
- 89 Undulatingly curved slaty Gneiss; from Marienberg.

C. *Varieties according to the Proportion of the Constituent Parts.*

- 90 Gneifs with a large quantity of Felspar, much Mica, and a little Quartz; from Freiberg.
- 91 A piece of Gneifs with very much Mica, much Quartz, and some Felspar.
- 92 Gneifs with very much Quartz, some Mica, and a little Felspar; from the Schneekuppe.

D. *Transitions.*

- 93 Gneifs, the half of whose Black Mica somewhat resembles Schistose Hornblende; from Freiberg.
- 94 A intermediate Fossil between Gneifs and Granite; from Bohemia.

E. *Decomposed Gneifs.*

- 95 Coarse fibrous Gneifs with slightly decomposed Felspar, but further decomposed Mica; from Switzerland.
- 96 Gneifs with entirely decomposed Felspar; from the Isaac near Freiberg.
- 97 Gneifs entirely decomposed, which is scarce any longer distinguishable except where the Quartz still retains its appropriate structure, with an adhering compound of Brown Blende, Martial Pyrites, and some Galena; from Freiberg.

F. *With superficial Ore.*

- 98 Superficial Red Silver Ore on Gneifs; from the Old Hope at Grossvoigtsberg.

G. *Ores and Veinstones which occur in Gneifs.*

- 99 Capillary Native Silver, in a compound consisting of a large quantity of Quartz, Copper Pyrites, Black Blende, some

- some Galena, Siderocalcite, and Martial Pyrites; from the Schweinkopf near Freiberg.
- 100 Antimoniated Silver Ore in drusy Quartz, intermixed with Argentiferous Arsenical Pyrites; from Braunsdorf.
- 101 Light Red Silver Ore, mixed with some Martial Pyrites and White Cobalt Ore; from Annaberg.
- 102 Superficial and disseminated Red Silver Ore, with Siderocalcite upon and in Gneiss; from Freiberg.
- 103 Massive Galena with some Light grey Silver Ore in Quartz; from the same place.
- 104 A groupe of Galena with Massive ditto and Brown Blende on Quartz, wherein a little Martial and Arsenical Pyrites is disseminated; from the same place.
- 105 Massive White Lead Ore in Baroselenite; from Tscho-pau near Marienberg.
- 106 Massive Tin Stone with Talcose Mica in Quartz; from Ehrenfriedersdorf.
- 107 Crystallized common Martial and Hepatic Pyrites on a Quartz groupe; from Johangeorgenstadt.
- 108 Similar, nearly decayed, Hepatic Pyrites on a Quartz groupe, with Baroselenite underneath.
- 109 Minutely crystallized Martial Pyrites on a Quartz groupe, with much Blende and Galena underneath; from the Morgenstern near Freiberg.
- 110 Rhomboidally crystallized Sparry Iron Ore on a Quartz groupe; from Annaberg.
- 111 Massive Arsenical Pyrites in Quartz, wherein a little Galena, Copper Pyrites, and Black Blende is disseminated, on Gneiss; from Freiberg.
- 112 Pyramidally crystallized Quartz, intermixed with Fluor Spar, on Gneiss; from the Halsbrücke near Freiberg.
- 113 A groupe of hexædral Prismatic Quartz Crystals, coated by Calcareous Spar, with Massive Quartz underneath wherein Brown Blende occurs, with adhering Gneiss; from Freiberg.
- 114 Wacken of a greenish grey colour; from Marienberg.
- 115 Prismatically crystallized calcareous Spar, on Massive ditto wherein a little Copper Pyrites is disseminated; from Freiberg.
- 116 Massive Baroselenite with Cubic impressions; from the Isaac near Freiberg.

117 Baroselenite

- 117 Baroselenite crystallized in rectangular tetrahædral tables, in a groupe of Fluor Spar; from the same place.
- 118 Lamellar Baroselenite crystallized in similar, globularly accumulated tables, forming a groupe upon foliated ditto; from Iberg.
- 119 Lamellar Baroselenite crystallized in very broad hexahædral Prisms with the extremities bevilled, on compact ditto, to which Martial Pyrites adheres underneath; from the Isaac near Freiberg.

H. *Stones occurring in extensive layers in Gneifs.*

- 120 A very large piece of common Actynolite passing into Asbestus; from the Father Abraham at Scheinberg.
- 121 Granular Limestone in Gneifs; from Braunsdorf.
- 122 Coral Agate (commonly so called) with a large quantity of Carnelianlike Jasper; from the Halsbach near Freiberg.
- 123 Coral Agate in which fine splintery Quartz predominates; from the same place.
- 124 Coral Agate with a large quantity of Amethyst; from the same place.
- 125 An entire vein of Violet Blue Amethyst, with Gneifs still adhering; from the same place.

4. *SCHISTOSE MICA.*

- 126 Very thick flaty Schistose Mica, in which the Quartz predominates; from Upper Lusatia.
- 127 Rather thick and undulatingly curved flaty Schistose Mica, with inlaying coarse grains of Garnet; from Braunsdorf.
- 128 Schistose Mica rather thin flaty, with very numerous small inlaying Garnets; from Meffersdorf.
- 129 Tolerably straight flaty Schistose Mica, also containing Garnets; found on the Road between Altenberg and Freiberg.
- 130 Schistose Mica in which the Mica predominates, with true Garnet Crystals; from the vicinity of Glasshütte.
- 131 Schistose Mica in which the Mica in some places somewhat

somewhat approaches to Hornblende; from Upper Lusatia.

- 132 A very fine flaty Schistose Mica, which appears to pass into Schistose Hornblende; from Schönfeld near Königsbrück.
- 133 An intermediate Fossil between Schistose Mica and Argillite; from Johangeorganstadt.

5. SCHISTOSE HORNBLENDE.

- 134 Extraordinarily fine flaty Schistose Hornblende; from the vicinity of Schneeberg.
- 135 Very fine flaty Schistose Hornblende, with superficial Martial Pyrites and calcareous Spar; from Freiberg.
- 136 Coarse flaty Schistose Hornblende, in which the Quartz is obvious; from Dorf-Kemniz.
- 137 Very coarse flaty Schistose Hornblende, which assumes almost a granular appearance; from the same place.
- 138 Schistose Hornblende which approaches to Argillite, in which, however, the particles of Hornblende are still obvious; from Norway.
- 139 A genuine transition from Schistose Hornblende into Argillite; from the same place.
- 140 Schistose Hornblende which is very fine and compact, with adhering coarse-grained Sienite; from the Adam Heber at Schneeberg.

6. ARGILLITE.

A. Common Argillite.

a. Varieties of the Colour.

- 141 Mountain green Argillite with adhering Calcareous Spar; from Schneeberg.
- 142 Greenish grey Argillite; from the same place.
- 143 Yellowish Grey Argillite; from Aix-la-Chappelle.
- 144 Smoke Grey Argillite; from the same place.
- 145 Blackish Grey Argillite; from Saalfeld.
- 146 Greyish Black Argillite, with granular Limestone underneath; from Braunsdorf.

147 Yellowish

- 147 Yellowish grey sprinkled Argillite, with oblong greenish grey spots also; from Lösnitz near Schneeberg.

b. Varieties of the Fracture.

- 148 Very thick flaty Argillite; from Wiederrengersdorf in Upper Lusatia.
149 Rather thick flaty Argillite with Quartz; from Braunsdorf.
150 Thin and straight flaty Argillite; from Adelfors in Sweden.
151 Very thin flaty Argillite, with superficial Mica in the rifts; from Meffersdorf.
152 Extraordinarily fine flaty Argillite; from Ronneburg in Russia.

c. Transitions.

- 153 Common Argillite which approaches very much to Siliceous Schist; from the same place.
154 A true intermediate Fossil between Common Argillite and Siliceous Schist; from the same place.
155 Argillite which approaches very nearly to Schistose Mica, with Garnets here and there; from Gersdorf near Freiberg.

d. Argillite as a Matrix.

- 156 Green Argillite mixed with Calcareous Spar; from the Adam Heber at Schneeberg.
157 Bluish grey Argillite intermixed with much Calcareous Spar and a Calcareous Spar groupe on one side; from Braunsdorf.

e. Mixed

*e. Mixed with other Fossils.**a. a. In traversing visible Veins or Slips.*

- 158 Argillite traversed by extremely delicate Schistose Mica; from Meffersdorf.
- 159 Argillite with traversing Schistose Hornblende, in numerous Slips; from the Adam Heber at Schneeberg.
- 160 Quartz Slips which traverse the Argillite; from Braunsdorf.
- 161 Argillite with a traversing Quartz Slip, which exceeds an inch; from Hohenstein.
- 162 Extremely numerous narrow Slips of Cinnabar in Argillite; from Idria.
- 163 A Quartz Slip with adhering Argillite on both sides; from Strasberg in the Hartz.
- 164 A Slip of Siderocalcite with adhering Argillite; from Schneeberg.

b. b. Veinstones and Minerals which occur in Argillite without forming visible veins.

- 165 Massive Galena in Calcareous Spar which is mixed with a little Siderocalcite; from the Hartz.
- 166 A groupe of White Lead Ore Crystals, on Quartz which is mixed with Galena and some Copper Pyrites, with adhering Argillite; from Zellerfeld.
- 167 Crystallized Yellow Blende with Calcareous Spar, upon an (apparently) decomposed Argillite; from Transylvania.
- 168 Grey Antimonial Ore, mixed with Plumose Ore; from Strasberg in the Hartz.
- 169 A Quartz groupe with Lamellar Baroselenite; from Gersdorf.
- 170 Green Fluor Spar; from Strasberg.

B. *Novaculite.*

- 171 Greenish grey Novaculite; from Barcuth.

7. *SILICEOUS SCHISTUS.*

- 172 Smoke grey, very thick flaty Siliceous Schistus; from the Gold Mine at Kunnersdorf.
- 173 Imperfectly conchoidal greyish black Siliceous Schistus; found as a boulder in the vicinity of Königsbruck, near Blankenburg.
- 174 a A piece of similar Siliceous Schistus with very numerous Quartz slips; part of a boulder found near Leipsic.
- 174 b Siliceous Schistus with very numerous traversing Quartz Veins; from Gersdorf.

Rem. It somewhat resembles the basis of Horn Porphyry.

8. *HORN PORPHYRY.*A. *Varieties of the Basis.*a. *The Fracture of it.*

- 175 Very thick flaty dark yellowish grey Horn Porphyry; from the Königsholz near Witgendorf in Upper Lusatia.
- 176 Also thick and somewhat curved flaty Horn Porphyry of the same colour; from Hutberg.
- 177 Rather thin flaty dark greenish grey Horn Porphyry; from Johannesberg near Zittau.
- 178 Nearly quite compact black Horn Porphyry with inlaying Hornblende; from Upper Lusatia.
- 179 Tolerably coarse splintery Horn Porphyry, passing from the smoke into greenish grey; from the Lausch.
- 180 Somewhat smaller splintery, but furnished with very numerous flakes, Horn Porphyry; from Goldberg near Gross Schöнау.

181 Very

- 181 Very fine splintery Horn Porphyry; from Waltersdorf near Zittau.
- 182 Dark smoke grey Horn Porphyry, whose fracture inclines from the splintery and flaty, into the imperfectly conchoidal; from Hainewald.

b. The distinct Concretions of it.

- 183 Horn Porphyry of coarse and round-grained distinct concretions; from near Hainewald.
- 184 Similar Horn Porphyry with small and round-grained distinct concretions; from the Lausch.

B. Varieties with respect to the other Constituent Parts.

a. With Felspar only.

- 185 Horn Porphyry with an extraordinary quantity of coarse-grained Felspar; from Hutberg.
- 186 Horn Porphyry with not so much, but small-grained Felspar; from Hainewald.
- 187 Horn Porphyry with extremely little Felspar; from Gorliz.

b. With other Constituent Parts also.

- 188 Horn Porphyry containing at the same time Felspar and inlaying Hornblende; from Unglückstein.
- 189 Horn Porphyry with a large quantity of Hornblende and but very little Felspar; from Silverberg in Upper Lusatia.
- 190 Horn Porphyry, with very small and few Felspar dots, and extremely numerous long Hornblende Crystals: from Hainewald.

C. Decomposed Horn Porphyry.

- 191 Horn Porphyry in which the basis is become very Argillaceous, with minute dots of Felspar, found as a boulder near Gorliz.

- 192 Horn Porphyry in which the Basis is somewhat, but the Felspar very far decomposed.

D. Other remarkable Particulars.

- 193 Horn Porphyry traversed by veins of Quartz and Martial Pyrites; from Garliz.

9. PORPHYRY.

A. With an Argillaceous Basis.

a. Varieties according to the Colour of it.

- 194 Porphyry with an Isabella yellow, inclining to ochre yellow Basis; found as a boulder between Pirna and Dresden.
- 195 Porphyry with a greyish grey Basis; from Altenberg.
- 196 Porphyry with a reddish white Basis; from Bergsteinbach.
- 197 Porphyry with a dark carnation red Basis; from Saxony.
- 198 Porphyry with a brownish red Basis; from Upper Lusatia.
- 199 Porphyry with a reddish brown Basis, very much inclining to Lavender blue; from the Schonergrund.
- 200 Porphyry with a similar Basis, which incloses green.

b. Varieties of the extraneous intermixed Parts.

- 201 Porphyry, with a large quantity of intermixed Felspar, very little Mica and Quartz; from Altenberg.
- 202 Porphyry, with much Felspar and little intermixed Mica, and very little Quartz; from near Halle.
- 203 Porphyry, with much Felspar and a good deal of Mica Crystals; from Schemniz in Lower Hungary.

Rem. This is the Saxum Metalliferum of Born.

- 204 Porphyry, with a large quantity of Mica, without Felspar; from Felsobania.

205 Porphyry

- 205 Porphyry, with minute scarcely visible grains of Felspar; from the road between Freiberg and Dresden.
- 206 Porphyry, with numerous intermixed Quartz Grains, without Mica or visible Felspar; from near Halle.
- 207 Porphyry, containing an exceeding large quantity of Felspar and some Quartz as well as Garnets; from Wittelsberg in Upper Hesse.

c. Decomposed Porphyry.

- 208 A piece of Porphyry in which the Felspar is indeed entirely, but the basis only slightly decomposed; from Norway.
- 209 Porphyry in which the Felspar is partly actually decomposed, but partly appears barely without lustre, the basis is become perfectly friable; from the vicinity of Regensburg.

Rem. It is very frequently passed for Terras.

d. Transitions.

- 210 Porphyry nearly approaching to Granite, with dendritic delineations; from Altenberg.

e. Inlaying Extraneous Stones.

- 211 Porphyry with much Calcedony in some places passing into Carnelian, upon which Quartz has crystallized and therefore forming an Agate; from the vicinity of Kemnitz in Saxony.

B. With a Jasper Basis.

- 212 Porphyry, with a liver brown Basis, and very small disseminated white Felspar; from Mutschen.
- 213 Porphyry with a brownish red Basis, and inlaying small-grained Felspar, the grains of which however lay together in coarse granular particles, with a coarse sandstone Breccia adhering to one side.
- 214 A Porphyry boulder in which an exceeding large quantity of Felspar, a good deal of Quartz and a little

little Hornblende occurs in the foregoing basis, which is here with difficulty recognised; from Silesia.

Rem. This is a transition into Sienite.

- 215 Very compact Porphyry, whose reddish brown basis approaches very nearly to Hornstone, with no great quantity of intermixed Felspar, Quartz and Hornblende.

C. *With an Hornstone Basis.*

a. *Varieties with respect to the Colour of the Basis.*

- 216 Hornstone Porphyry with a yellowish and reddish white basis; from Carinthia.
 217 Hornstone Porphyry with a very pale smoke grey, in some places also greenish grey basis; from Wurzen.
 218 Hornstone Porphyry with a basis of an intermediate colour between greenish grey and Olive green; from Quandstein near Borna in Saxony.
 219 Hornstone Porphyry having a lavender blue basis, with a Quartz groupe adhering underneath; from the same place.
 220 Hornstone Porphyry with a reddish brown basis; from Nikkelsberg in Bohemia.
 221 Hornstone Porphyry with a Clove brown basis; from Bohemia.
 222 Hornstone Porphyry with a dark blackish green basis; from Zealand.

b. *Varieties of its Fracture.*

- 223 Porphyry of a fracture very much inclining from the splintery into the imperfectly conchoidal; from near Kemnitz in Saxony.
 224 Small splintery Porphyry; from Petersburg near Halle.
 225 Fine splintery Porphyry; from Upper Lusatia.
 226 Extremely fine splintery Porphyry; from Hungary.

c. *Varieties*

c. Varieties originating from the other Constituent Parts.

- 227 Porphyry with a few inlaying Felspar grains only; from Brehne.
- 228 Porphyry with numerous, mostly small-grained inlaying pieces of Felspar; from Denmark.
- 229 Porphyry with very much, for the most part coarse-grained, intermixed Felspar, some Quartz, and very little Hornblende; from Saxony.
- 230 Porphyry with much inlaying Quartz and very little Felspar; found as a boulder near Leipsic.
- 231 A piece of Porphyry with very numerous Quartz grains and very little Felspar; from Iglausberg in Bohemia.
- 232 Hornstone Porphyry mixed with an extraordinary quantity of Quartz, which appears to pass into the following variety; from Bohemia.
- 233 Hornstone Porphyry mixed with Quartz and indistinct Hornblende, without any visible Felspar, which is in some measure a transition into the basis itself; from Wurzen.
- 234 Hornstone Porphyry whose basis is mixed with an extraordinary quantity of Quartz and much Hornblende in spots; from Joachimstahl.
- 235 Hornstone Porphyry with much intermixed Calcedony; from near Kemniz.
- 236 Hornstone Porphyry with numerous interspersed Garnets and some Quartz without Felspar; from Hungary.
- 237 Porphyry in which Zeolite appears to present itself; from the Mountain Frualid in Schonen.

Rem. It is there very erroneously considered as a Trap.

d. Decomposed Hornstone Porphyry.

- 238 Porphyry in which the Felspar is partially somewhat decomposed; from the country between Kremniz and Neusohl in Hungary.
- 239 Porphyry in which the Hornblende formerly existing
in

in it is entirely decomposed and resembles coal, but the Felspar (which however could not have been in any great quantity therein) is converted into Porcelain Clay; from Bohemia.

- 240 Porphyry, in which the Felspar is not alone decomposed, but the basis itself is also very much altered; from Hungary.

e. Transitions of Hornstone Porphyry.

- 241 A piece of Porphyry very obviously passing into Granite; from Wurzen.
- 242 Porphyry forming the transition into the Rothe Todt-liegende so called *; from Rothenburg on the Saal.

* Or Semi-Protolite.

f. Veinstones traversing and occurring in Hornstone Porphyry.

- 243 Porphyry with very numerous traversing narrow Slips of Sparry Iron Ore, and also with a little superficial Martial Pyrites and Galena; from the Pocherstollen near Schemnitz in Lower Hungary.
- 244 A Vein which consists of a large quantity of Black Blende and Martial Pyrites, mixed with a very little Galena, and an overlaying groupe of Siderocalcite on Massive ditto, upon Porphyry.
- 245 Sulphurated Bismuth on a Quartz Matrix, with adhering very much decayed Porphyry; from the same place.

D. Quartz Porphyry.

- 246 Smoke grey very fine Quartz Porphyry, with traversing Slips of Sparry Iron Ore, also here and there with disseminated Copper Pyrites and Galena; from the same place.

E. Pitchstone

E. *Pitchstone Porphyry.*a. *Independently considered.*

- 247 Porphyry, the basis of which is a smoke grey Pitchstone slightly inclining to bluish, with very much intermixed Felspar; from the country between Schemniz and Glasshütte in Lower Hungary.
- 248 Porphyry with a black Pitchstone basis and very much inlaying Ironshot Felspar; from Meissen.
- 249 Pitchstone containing but very few traces of inlaying Felspar, thus forming the boundary; from the same place.

b. *Stones occurring in it.*

- 250 Perfectly fine Olive green Pitchstone; from the same place.
- 251 Brick red, quite fine-grained Pitchstone; from the same place.

10. *TRAP.*A. *Genuine Trap.*

- 252 Trap composed of a very fine admixture of much Hornblende and Quartz, yet so that they are still distinct from each other, with extremely slender intermixed Felspar particles; from the highest summit of Kinnakulle.
- 253 Trap of a similar, scarcely small-grained, mixture, in which the Felspar is hardly more distinct; from Bohemia.
- 254 A piece of a Trap boulder, in which also the Felspar is scarcely distinguishable, with disseminated Martial Pyrites; from the vicinity of Gorliz.
- 255 A piece of Trap in which the admixture of greenish grey Hornblende with the Quartz is less, but the Felspar grains are notably more distinct, and the whole

- has a flaty appearance, therefore at first sight it might be taken for a Hornblende slate; from Norway.
- 256 A piece of Trap in which also the Quartz is very distinct, but the Felspar still more obvious than in the foregoing; from the Windschacht near Schemniz.
- 257 Trap, wherein the Hornblende is of a somewhat lighter green colour, and the whole contains much small-grained Felspar; from Siberia.
- 258 A piece of dark greenish black Trap with tolerably long-grained inlaying Felspar, wherein the Hornblende evidently exceeds the Quartz very considerably; from the same place.
- 259 Greenish grey Trap, with abundant coarse-grained inlaying greenish white Felspar; from Hungary.
- 260 Trap with an extraordinary quantity of very coarse-grained Felspar; from Teufelsberg near Königsbruck in Upper Lusatia.
- 261 A piece of Trap with much large and unusually long-grained inlaying Felspar; from Norway.
- 262 Somewhat decomposed Genuine Trap, in which the Felspar principally is decayed, the Hornblende however is greenish grey, and owing to the Quartz admixture is nearly of a mountain green colour, hence frequently this variety has been taken for Porphyry; from Mount Calvary near Schemniz.
- 263^a A piece of Trap passing into Sienite, where the Quartz becomes apparently more insulated; from Upper Lusatia.
- 263^b Genuine Trap with numerous traversing veins of Calcareous Spar; from Paliosero, 100 Wersts from Petrosawodsk.
- 264 Genuine Trap, in which however, the Felspar is with great difficulty discoverable, with much intermixed Magnetic Iron Stone; from the same place.

B. *Semi-Trap?*

- 265 A peculiar sort of Trap, in which the Quartz is in the first place intimately mixed with Hornblende, but then very much pure Quartz, mostly granular, is distributed through it in place of the Felspar as in the foregoing; from Altenberg in Saxony.

266 The

- 266 The same variety, with a traversing Slip consisting of Hornstone with inlaying Felspar and a little disseminated Martial Pyrites; from Zealand.

Rem. It graduates into Porphyry.

C. *Grünstein?*

- 267 A sort of Trap, visibly consisting simply of a mixture of pure Hornblende with coarse and small-grained Felspar; from the same place.
- 268 Trap with very much Felspar, which predominates in the compound; from the same place.
- 269 Grünstein, wherein beside the Hornblende and some Felspar, Mica also occurs, which however is only an accidental occurrence in this sort of Rock.

12. BASALT.

A. *Varieties in the Basis.*

- 270 Extremely compact dark greyish black Basalt, part of a boulder from Upper Lusatia.
- 271 Somewhat lighter greyish black Basalt; from Gutte in Upper Lusatia.
- 272 Blackish grey Basalt, somewhat approaching to the flaty; from the southern Peak of Landskrone.
- 273 Dark smoke grey Basalt; from Fulda.
- 274 Rather lighter fine splintery Basalt; from Bohemia.
- 275 Grey Basalt whose basis is very argillaceous and has an uneven fracture; from the Herrenhuter Hutberg in Upper Lusatia.
- 276 A piece of Basalt of coarse and small-grained distinct concretions.
- 277 A large pentagonal columnar distinct concretion of Basalt.
- 278 A spheroidal piece of Basalt.
- 279 A similar piece, in the center of which, curved Lamellar distinct concretions are distinctly perceptible,

as also almost the whole exterior is much more decayed than the Nucleus.

Rem. The specimens 275—279, are all from Upper Lusatia, and 278 indeed from Hernhut, but 279 from Petersgrund.

B. *Varieties arising from the intermixed Particles.*

- 280 Basalt with very little intermixed Chrysolite; from the road between Eisenach and Cassel.
- 281 Basalt, with much more minutely disseminated Chrysolite; from the Wansch in Upper Lusatia.
- 282 Basalt, with coarsely disseminated, almost massive Chrysolite; from Unkelstein on the Rhine.
- 283 Basalt, with dark reddish disseminated Chrysolite approaching extremely near to Garnet; from Weigsmansdorf in Upper Lusatia.
- 284 A piece of Basalt, with an inlaid fossil which appears to consist of green Garnet mixed with Felspar, and lays therein larger than a closed hand; from Meffersdorf in Upper Lusatia.
- 285 Basalt, with inlaying decayed Chrysolite and a little Hornblende; from Salusan, on the road from Gatsch to Rimazenbath in Hungary.
- 286^a Basalt, with very much intermixed Hornblende grains and but little Chrysolite, also some Calcareous Spar in lieu of it; from Rabenstein in Upper Lusatia.
- 286^b Basalt, with extremely numerous inlaying Hornblende Crystals, and minutely botryoidal Calcedony; from Hesse Darmstadt.
- 287 Basalt with disseminated Zeolite and some Hornblende; from Jauerik in Upper Lusatia.
- 288 Basalt with inlaying calcareous Spar and Zeolite, and also some Hornblende and Mica in several places; from Fulda.
- 289 Yellowish brown Bole, found in, and also mixed with Basalt, and probably originating from the decomposition of it; from Steinberg near Lauban.
- 290 A piece of Basalt, in which beside the Chrysolite disseminated only partially, also half decomposed Felspar of an inch in diameter occurs; from Upper Lusatia.

C. *Transitions*

C. *Transitions.*

- 291 A Basalt almost perfectly decomposed to Wacken, and much resembling it; from the Wansch in Upper Lusatia.
- 292 Basalt of imperfect coarse granular distinct concretions, very nearly approaching to Horn Porphyry, part of a boulder; from the vicinity of Meffersdorf.
- 293 Basalt, which partly on account of its light grey colour, and partly by its fracture and cohesion, very nearly approaches to Siliceous Schistus, is also mixed with the same of a darker colour, and possesses a great degree of Spec. grav. from the Causeway near Cassel.

D. *Extraordinary Admixtures.*

- 294 Basalt mixed in such a manner with Granite, that the latter in some places is enveloped in the former, and that again in the latter; from Schwerterthal in Upper Lusatia.
- 295 A singular mixture of Basalt grains and Sienite, in which beside, entire streaks of Basalt traverse the latter in the manner of veins, which proves that this mixture must have been yet soft where the latter entered it; from Landskrone in Upper Lusatia.

13. *AMYGDALOID.*A. *Basaltic Amygdaloid.*a. *Varieties of the Basis.*

- 296 Amygdaloid with a reddish brown, very compact basis, and much crystallized Zeolite in it; from the Crater at Euben in Fulda.
- 297 Amygdaloid with a tolerably compact basis and coarse-grained uneven fracture; from the same place.

298 Amygdaloid

- 298 Amygdaloid whose basis exhibits a conchoidal fracture; from the same place.
- 299 Amygdaloid with a tolerably earthy fracture, much inlaying Zeolite and Hornblende; from the same place.

b. Varieties of the Intermixed Parts.

- 300 Amygdaloid resembling Basalt, with the so called imperfectly botryoidal Rock Crystal; from Frankfort on the Main.
- 301 Amygdaloid with much inlaying globular Calcedony, wherein in some places Opal occurs.
- 302 Similar, but rather softer Amygdaloid, with small groupes of calcareous Spar; from Fulda.
- 303 Amygdaloid mixed with very much Hornblende, and the pores wherein formerly Calcedony or the like may have been enclosed, are finely coated with Zeolite; from the Lauscha in Upper Lusatia.
- 304 Similar Amygdaloid, partly with Calcareous Spar, and partly with elliptic masses of Green Earth; from Ilfeld in the Hartz.

c. Decompositions.

- 305 Amygdaloid resembling Basalt, in which small groupes of Zeolite occur, which in some places have totally lost their water of crystallization.
- 306 Similar Amygdaloid, out of which all the extraneous parts have decayed, therefore the whole has a perfectly porous appearance; from Ascherofen in the Thuringian Forest.
- 307 A piece of Amygdaloid in which not only all the extraneous parts have decayed out, but the basis itself is also very much decayed, hence such varieties are not unfrequently called Pumice; from Upper Lusatia.

B. Common Amygdaloid.

- 308 Amygdaloid with a very argillaceous reddish grey basis

basis and inlaying Spheroids of Green Earth; from Zwickau in Saxony.

- 309 Amygdaloid with a pale greenish grey basis, and similar small inlaying Spheroids; from the same place.
- 310 Amygdaloid strongly inclining from the greenish grey into mountain green, mixed with much Calcareous Spar in small grains; from the country between Osterode and Clausthal.

Rem. Here and there this Calcareous Spar is decayed out.

- 311 A singular variety of Amygdaloid, wherein distinctly crystallized Calcareous Spar occurs which is perfectly transparent.
- 312 Amygdaloid with inlaying Spheroids of Lithomarga, which are in some places entirely washed out or decayed; from Bohemia.
- 313 A similar but long-stripped Amygdaloid, in which the basis is greenish grey, the Lithomarga long-grained and white, also partially mixed with some Mica; from the Erzgebirge.
- 314 A rare variety of Amygdaloid, in which not only small Spheroids, the size of a pea of Calcareous Spar, but besides that also long-grained Felspar occurs intermixed; from the vicinity of Zwickau in Saxony, found forming a boulder.

14. SERPENTINE.

- 315 Light Olive green Serpentine, with very numerous traversing black veins of the same; from Waldheim in Saxony.
- 316 Rather darker similar Serpentine, with fewer veins of the foregoing kind; from the same place.
- 317 Dark blackish green, striped with canary green Serpentine, which latter is very Steatitical; from the same place.
- 318 Dark blackish green Serpentine, with numerous inlaying Garnets; from Zöblitz near Marienberg in Saxony.

319 Rather

- 319 Rather lighter Serpentine with fewer Garnets; from the same place.
- 320 Serpentine with inlaying green Garnets and also Mi-
ca; from the same place.
- 321 Very micaceous Serpentine, with an intersecting Slip
of Steatites; from the same place.

15. PRIMITIVE LIMESTONE.

a. Independently considered.

- 322 Smoke grey granular Limestone; from Königsbruck
in Upper Lusatia.
- 323 Very dark smoke grey granular Limestone, with a
traversing Slip of Calcareous Spar; from the same
place.
- 324 Greenish grey small-grained Limestone; from the
same place.
- 325 Fine-grained blackish grey Limestone, with adhering
Calcareous Spar; from Upper Lusatia.
- 326 Very fine-grained grey Limestone, with adhering
white ditto; from the same place.
- 327 Extremely fine-grained black Limestone upon Calca-
reous Spar; from Kunnersdorf in Upper Lusatia.

b. With respect to the Intermixed Parts.

- 328 Granular Limestone which is mixed with much Ar-
gillite; from Kunnersdorf.
- 329 Limestone mixed with a sort of Steatites, which how-
ever is only the before mentioned Argillite in an
altered state; from the same place.
- 330 Granular Limestone with adhering massive and crys-
tallized Calcareous Spar, intermixed Argillite and
Galena; from Braunsdorf.
- 331 Reddish white Calcareous Spar, with granular ditto
which passes into the compact, and mixed with Argil-
lite.

332 Rhomboidal

- 332 Rhomboidal Calcareous Spar, consisting merely of agglutinated fragments.

Rem. It is found near Kunnersdorf, in the Strata of granular Limestone.

16. QUARTZ.

- 333 White Quartz, with thick illinitions of Manganese in the rifts; from Weissenstein near Ober-Gerlachshausen in Upper Lusatia.
- 334 A smaller similar piece, with an extraordinary number of rifts, by which the Quartz has superficially a somewhat dendritic appearance; from the same place.
- 335 A large piece of greyish white Quartz; from Frauenstein in the Erzgebirge.

17. TOPAZ ROCK.

- 336 Topaz Rock, with white and also wine yellow Topazes; from Schneckenstein near Auerbach in the Erzgebirge.
- 337 Topaz Rock with a very distinct inlaying Topaz Crystal; from the same place.

SECOND CLASS.

MARIGENOUS ROCKS.

1. MARIGENOUS ARGILLITE.

A. Common Marigenous Argillite.

- 338 Smoke grey Marigenous Argillite, with an indistinct impression, probably of a fish; from Deux-ponts.
- 339 Reddish grey and greenish grey Marigenous Argillite, with impressions of Mytilites; from Hesse.
- 340 Slightly micaceous Marigenous Argillite; from the fourth light hole of the George adit in the Hartz.

Rem. This graduates into grey Wacke.

3 F

B, Aluminous

B. *Aluminous Slate.*

- 341 Glossy Aluminous Slate, with much visible Martial Pyrites; from Sweden.
- 342 Aluminous Slate with much superficial Martial Pyrites; from Russia.

Rem. This fossil appears to pass into Bituminous Argillite.

2. *MARIGENOUS LIMESTONE.*A. *Compact Limestone.*

a. *Varieties of the Limestone independantly considered, without regard to the admixture of Fossils or Extraneous bodies.*

a. a. *Of the Colour.*

- 343 Isabella yellow Compact Limestone; from Wurtemberg.
- 344 Yellowish grey Limestone; from Iena.
- 345 Dark yellowish grey Limestone.
- 346 Pale smoke grey Limestone; from Iena.
- 347 Dark smoke grey Limestone with numerous petrifications; from Rammelsberg.
- 348 Reddish brown Limestone with numerous inlaying petrifications; from Neustadt at Rubenberg.
- 349 Dark and light yellowish brown streaked Limestone; from the same place.
- 350 Yellowish grey Compact Limestone with long-grained white spots.
- 351 Greenish grey brown-veined Limestone; from Liebkau.
- 352 Ochre yellow, spotted with greyish white, Limestone.

b. b. *Of the Fracture.*

- 353 Small splintery grey Compact Limestone; from Weimar.

354 Isabella

- 354 Isabella yellow Limestone, passing from the fine splintery into the conchoidal, with the impression of a fish; from the Austrian Netherlands.
- 355 Compact Limestone whose fracture inclines very much to the flaty; from the same place.
- 356 Small cellular Limestone; (Zechstein) from Eisleben in Mansfeld.
- 358 Compact Limestone with delicate arborizations; from Pappenheim in Suabia.
- 359 Limestone with a single dendritic delineation representing a Fir; from the same place.

a. Compact Limestone with distinguishable Extraneous Bodies.

α, α. Petrified Nuclei.

- 360 A small Osteolite in yellowish grey Limestone; from Erfurt.
- 361 A rather broader Osteolite in smoke grey compact Limestone; from Weimar.
- 362 A very singularly shaped Osteolite, almost like a Crab's claw; from Erfurt.
- 363 A petrified fishes tooth, above an inch in length, and still firmly imbedded in grey compact Limestone; from Swisserland.
- 364 A somewhat smaller Osteolite detached; from the same place.
- 365 Several Osteolites with smooth margins, and much longer in proportion to their breadth.
- 366 Orthoceratites in yellowish grey compact Limestone; from Erfurt.
- 367 Belemnites from two to four inches long and above half an inch thick; from Bebenhausen in Würtemberg.
- 368 Another Belemnite three inches long and one third of an inch thick; from the same place.
- 369 Somewhat compressed Belemnites; from Goslar.
- 370 Two Belemnites adhering, separated only by a fissure; from Luklum in Sweden.
- 371 A piece of a Belemnite whose transverse Section is of an Elliptic figure.

- 372 A smaller Belemnite penetrating a larger one in a straight direction; from Hurenberg.
- 373 A Belemnite of the figure in Walch's engravings, Tab. 6. b. 2.; from the Canton of Basle.
- 374 A similar but more slender Belemnite; from Chemniz in the Erzgebirge.
- 375 Several Belemnites so connected together in compact Limestone, that the apex of one lays universally between the bases of the others; from Austria.
- 376 An almost cylindrical Belemnite in compact grey Limestone; from Swisserland.
- 377 A Belemnite with the apex truncated, and cleft in the middle; from Altorf.
- 378 Another furnished with an apex, and cleft not quite to the top; from the same place.
- 379 A Belemnite, or rather the superior portion of it, with an elliptic cavity in the middle; from Mutenz in the Canton of Basle.
- 380 Very slender Belemnites in Limestone; from Thuringia.
- 381 Small separate starry columnar stones; from Swisserland.
- 382 Slenderer ditto; from the same place.
- 383 A smaller ditto, on compact Limestone; from Galgenberg near Gandersheim.
- 384 Several piled on each other into actual columns; from Wurzburg.
- 385 Similar rounded ditto; from Fachheim in Cobourg.
- 386 Ditto, piled upon each other in pairs; from the same place.
- 387 Several ditto, piled over each other to the number of from four to seven; from Swisserland.
- 388 The same of a smaller diameter; from Champagné.
- 389 The same with the edges entirely rounded off; from the same place.
- 390 Rather thicker similar ditto, inhering in a somewhat bituminous Limestone; from Thuringia.
- 391 Ditto, with angular margins; from Cobourg.
- 392 Several thicker ditto, in which also the spiky margins are distinguishable.
- 393 Encrinites (articulated stone) with Caryophylites in compact grey Limestone.

- 394 An Encrinite but without the bush, as is represented in Walch's 2d table. 2. a. in compact Limestone; from Austria.
- 395 A similar smaller piece, but more injured in the stem; from the same place.
- 396 Part of a petrified Caput Medusæ in yellowish grey Limestone; from the Netherlands.
- 397 A large petrified Sea-urchin (Echinite), but with an oblique mouth.
- 398 Another more equilateral Echinite; from the vicinity of Leipsic.
- 399 The greater portion of a similar but somewhat flatter petrified Echinite; from Echningen in Würtemberg.
- 400 Another petrified Echinite with a very oblique mouth; from Hardisleben in Weimar.
- 401 An Echinite of the variety figure 123 of the 11th table in Gmelin a. a. O; from the same place.
- 402 Another of a similar kind, but with broader Folia; from Randberg in Swisserland.
- 403 A small Echinite in which the position of the mouth as well as of the anus is distinguishable; from the same place.
- 404 A similar somewhat flatter ditto; from the same place.
- 405 One of the same sort, but the streaks are not so distinct; from Seebachgrund near Bamberg.
- 406 A piece of a very large Echinite which exceeds eight inches in diameter, but is only two in height, and is the petrified scutum angulare altius of Klein; from Sienna.
- 407 A petrified Turkish turban with the warts still distinguishable on it.
- 408 A petrification of the so called rose flower; from Languedoc.
- 409 A similar ditto, but more abraded; from Lubec.
- 410 Another ditto, in which only three leaves of the whole flower are to be seen; from the same place.
- 411 A similar sort with four rows of prickles in each furrow.
- 412 An Echinite of the sort called death's head, with very deep furrows, and the impression of the anus perfectly distinct; from Goslar.

413 A similar

- 413 A similar ditto, with the furrows somewhat shorter and not so deep, also with the impression of the anus indistinct; from the same place.
- 414 A ditto, but very indistinct as the furrows are injured; from the same place.
- 415 A smaller ditto; from the same place.
- 416 Another ditto, much flatter; from Erlangen.
- 417 Five of the smallest species of Echinite; from Lubec.
- 418 A number of tolerably large Echinite spines still preserving their shanks; from Randberg in Switzerland.
- 419 Another which has lost the shank, but is still thorny; from the same place.
- 420 A clubshaped Echinite spine above an inch and quarter long, with its shank without thorns; from the Veronese.
- 421 An Echinite spine of the acicular kind in greyish black compact Limestone; from Pfaffrath in Bergen.
- 422 Tubulites longitudinally fulcated (dentalium Linnæi); from Chamont in France.
- 423 Extremely delicate Vermiculites, adhering over and through each other; from the Alp in Würtemberg.
- 424 A ditto, nearly the thickness of a quill; from Switzerland.
- 425 A petrified Serpula penis; from the same place.
- 426 A multitude of very indistinct Vermiculites upon a boulder of compact Limestone; from Weimar.
- 427 A large and very tall Nautilite with a diameter of nearly six inches; from Balingen in Suabia.
- 428 Another somewhat lower Nautilite; from Jena.
- 429 A piece of the exterior coil of a large Nautilite; from Varingen near Vienna.
- 430 A piece of another, in which the shell of the original is still extant, which shews that the snail was the Nautilus Pompilius Linnæi; from Lorraine.
- 431 Small Nautilites in Lumachella, a boulder of which is sawed through and polished; from upper Austria.
- 432 A number of small Nautilites of which the whole bulk

bulk does not exceed half an inch; from Langensalza in Thuringia.

- 433 A very large Ammonite, which on account of its being injured in the middle, has perfectly the appearance of a Nautilite, and whose entire diameter exceeds six inches; from Weimar.
- 434 An Ammonite about four inches in diameter, in the same condition; from the same place.
- 435 A three inch Ammonite, in which the continuation of the coil is rather more distinct; from the same place.
- 436 The half of a large Ammonite, which must have been visible to the third coil; from Tyrol.
- 437 A flatter and rather smaller Ammonite, in which the second coil only is clearly distinguishable; from Pappenheim.
- 438 An Ammonite which may be traced to the third coil, three inches in diameter, with overlaying Vermiculites; from Querfurth.
- 439 A two inch Ammonite, which is distinguishable to the fourth coil; from Hermansdorf in Bamberg.
- 440 Two smaller Ammonites more depressed; from the same place.
- 441 Several, in some places still smaller Ammonites; from the same place.
- 442 A three inch Ammonite very much depressed, in other respects similar to the foregoing, except that it is bored entirely through in the middle; from Bucksweiler in Alsace.
- 443 A very much depressed still larger Ammonite, in which, however, the chambers of the interior coil are laid entirely open by being somewhat damaged; from Altengönnna near Jena.
- 444 Ammonites whose fifth coil is yet distinguishable, and which are somewhat spiky in the exterior margin; from Frankensdorf in the Canton of Basle.
- 445 A similar very well proportioned Ammonite, depressed towards the centre; from the same place.
- 446 An Ammonite in compact grey marlaceous Limestone, which is broken so exactly that the petrification is distinct in both pieces, only reversed, in the one appearing like an impression; from Altorf.

447 An

- 447 An imbedded Ammonite, in which the thickness of the shell seems to diminish very quickly in the succeeding coils; from Erfurt.
- 448 A similar Ammonite with the cells very deeply hollowed; from the Plauishen-Grund near Dresden.
- 449 An Ammonite somewhat injured in the centre, and the cells themselves shallower; from the same place.
- 450 An Ammonite of this kind which may be traced to the fifth coil; from Altorf.
- 451 Similar Ammonites, of which two are imbedded in compact Limestone, in one of which however the exterior part only remains; from Jena.
- 452 An Ammonite depressed in the centre, almost like a funnel; from Tournay in France.
- 453 Several very beautiful Ammonites with narrow cells, in compact Limestone which is mixed with granular ditto; from the Vicentine.
- 454 A large but indistinct Helizite, which measures above an inch and three-fourths; from Brugg on the Leutha.
- 455 A great number of smaller but very distinct Helizites, exceeding an inch in diameter; from Pilatusberg in Switzerland.
- 456 A similar but rather smaller Helizite, inhering in compact Limestone; from Gmünden.
- 457 Several Helizites from half an inch down, which are very distinct; from Turrik in Steiermark.
- 458 Similar, yet rather smaller reticulated Helizites, in compact Limestone, which is mixed with much Calcareous Spar; from Hungary.
- 459 Small, nearly smooth Helizites in yellowish Limestone; from Ronca in the Veronese.
- 460 A multitude of small Helizites compacted together; from Brussels.
- 461 A petrified Nabelschnecke in bright grey Limestone, in which the distance of the outward margin of the coils is three-fourths of an inch from one another; from Switzerland.

Rem. It is remarkable that this Cochlit itself is found in a Chamite.

- 462 Several similar slenderer Nabelschnecke, in some places

- places visible through all their coils, in the same sort of Stone; from the same place.
- 463 Several rather flatter similar Petrified Nabelfchnekke, in compact Limestone; from Aix-la-Chapelle.
- 464 Minute similar Nabelfchnekke, intermixed moreover with numerous Turbinites; from Querfurth.
- 465 Several Nabelfchnekke in a sort of Lumachella; from Würtemberg.
- 466 Similar though smaller Nabelfchnekke in rather dark grey Lumachella; from Cobourg.
- 467 A Neritite, somewhat exceeding an inch in size; from Bensberg in the Dutchy of Berg.
- 468 A smaller Neritite about one-third of an Inch in size; from Juliers.
- 469 Tolerably thick Globosites; from the same place.
- 470 A similar Globosite, only somewhat larger and dilated; from Iudenberg near Gerresheim in the Duchy of Berg.
- 471 A Globosite of the first variety, with the Apex broken off; from the same place.
- 472 A large Buczinite; from the same place.
- 473 A similar somewhat compressed Buczinite, which has no spines, but merely hoops (Riefen) lengthways.
- 474 A more dilated, but delicately streaked Buczinite; from England.
- 475 A similar though more convex Buczinite, water worn quite smooth; from Pontamousson in France.
- 476 Another with still more convex coils; from the same place.
- 477 Three Murizites (*murex decollata* Linnæi); from Della Guardia in Italy.
- 478 A small Murizite, laying nearly buried in compact Limestone; from Rheims in Champagne.
- 479 Several very small Murizites compacted together into Lumachella; from the same place.
- 480 Still smaller Murizites with numerous other petrifications in the same specimen; from Normandy.
- 481 A large broad Trochilite, two inches and an half high; from the islands of Ferröe.
- 482 Another, proportionally slenderer, and only about two inches high; from Transylvania.

- 483 A very tapering conical Trochilite; from the same place.
- 484 A much lower Trochilite, the two lowest coils hollow; from Sweden.
- 485 Some Trochilites, with three smooth tolerably convex Coils; from Webersleben.
- 486 Small Trochilites (*Trochus minimus* Lin.); from Halberstadt.
- 487 A tolerably broad Cochlite, resembling a Trochite, with an inhering groupe of Calcareous Spar; from Aix-la-Chapelle.
- 488 A similar Cochlite, having only two coils, but which are more remote from one another; from Mülheim on the Ruhr.
- 489 A similar Cochlite, but the coils much further separated from one another.
- 490 Trochite-like Cochlites, with more numerous Coils; from Burvenich in Juliers.
- 491 A very beautiful Trochite-like Cochlite with five coils, attached beneath, and much better proportioned than the former.
- 492 A similar one detached, with somewhat greater intervals between the coils; from Aix-la Chapelle.
- 493 A Trochite-like Cochlite, with three even and flatly compressed Coils; from Goslar.
- 494 A Trochite-like Cochlite, which approaches very near to a Turbinite, and is inherent.
- 495 A large Turbinite, in which five coils are distinguishable, and which is four inches high and two thick; from Königslutter.
- 496 An entire Turbinite of five coils, of which the last is double the size of the second, with still more petrifications inhering; from Hampshire in England.
- 497 A Turbinite about two inches long with convex coils, which is half imbedded; from Buchsweiler in Alsace.
- 498 A Turbinite very broad at the base, tapering in the manner of a rightangled triangle, and attached by the uppermost coil; from the same place.
- 499 A small Turbinite about an inch and one quarter high, with four coils; from St. Gall in Switzerland.
- 500 A Turbinite about the same size, with flat coils closely pressed on one another; from Buchsweiler.

- 501 Several small, tolerably convex Turbinites in compact Limestone; from Jena.
- 502 A Turbinite with the coils fulcated lengthways; from Valenciennes in the Netherlands.
- 503 Many very small Turbinites, laying together in a piece of compact Limestone; from Neukirch in Lorraine.
- 504 A Strombite three inches long and one inch thick, with the coils slightly fluted; from Birsén in Würtemberg.
- 505 Two small Strombites with prominent coils, half imbedded: from Weimar.
- 506 A Strombite about two inches long, with twelve visible and rather low coils; from Transylvania.
- 507 A Strombite with undulating rings; from Welsh Neuburg in Switzerland.
- 508 A similar one, only somewhat more slender in proportion; from the same place.
- 509 A multitude of Strombites imbedded in Limestone; from Jena.
- 510 Several Strombites, loose, and as if notched in the coils.
- 511 Several Conites adhering together, of an inch and half in height and the base of each two inches broad; from Kismuchel in Transylvania.
- 512 Unknown Cochlités which are narrow and curved, imbedded in a piece of Limestone; from Norway.
- 513 Similar Cochlités, but rather broader, and in some places lunated; from Flanders.
- 514 A piece of Compact Limestone, with similar but less curved and more slender Cochlités; found as a boulder near Leipsic.
- 515 The same, but mostly much longer, in grey compact Limestone; from Weimar.
- 516 Other very small unknown Cochlités in compact Limestone; from the same place.
- 517 An assemblage of various small Strombites, and others of the Cochlite kind; from Thuringia.
- 518 Another similar mixture, in which the fore mentioned longish Cochlités predominate; from Weimar.
- 519 Another mixture also, from which many appear to have fallen out, and those still remaining in it are quite indistinct; found near Naumburg.
- 520 A large and beautiful Discite; from Neustadt at Rübenberg in Hanover.

- 521 Another flatter Diszite, not much smaller, but not more distinct at the extremity (am Schlosse); from the same place.
- 522 A multitude of small Diszites scarcely an inch in size, with many Ammonites and numerous other Cochlitcs in compact Limestone; from Weimar.
- 523 A large Pectinite; from Aristorf in the Canton of Basle.
- 524 Fragments of a very large similar Pectinite; from Quedlinburg.
- 525 A small Pectinite about an inch and quarter long; from Ammerbach near Jena.
- 526 Small Pectinites, which affect the likeness of Chamites; from Querfurth.
- 527 A similar Pectinite, with very delicate streaks; from Weimar.
- 528 Pectunculites detached and single.
- 529 A multitude of tolerably coarse streaked Pectunculites in compact Limestone; from Weimar.
- 530 The same doubled, (as is figured in Walch a. a. O. in the middle) imbedded in Limestone; from the same place.
- 531 Small Pectunculites with rather more delicate streaks; from Goslar.
- 532 The same imbedded, whose streaks are partially abraded by continued rolling in water; from Altorf.
- 533 Delicate Pectunculites, with many Conchites in Limestone; from Weimar.
- 534 The same rather delicately streaked, with impressions of Pectinites; from Dressendorfberg near Bareüth.
- 535 Very delicately streaked Pectunculites, abundantly inlaying in Limestone; from Weimar.
- 536 Extremely delicately streaked Pectunculites; from the same place.
- 537 Small and in some places incomplete Pectunculites in Limestone; from Altorf.
- 538 A smooth Chamite about two inches and an half long and broad; from Waldenheim in Alface.
- 539 Two Chamites quite closely connected by their straight sides, which appear almost like a Bucardite; from Boll in Württemberg.

540 Somewhat

- 540 Somewhat smaller, similar, smooth Chamites, in which both shells are still visible; from Pyrmont.
- 541 A large, similar Chamite of which only one shell is visible, but which is above three inches long; from the same place.
- 542 A small and more dilated Chamite; from Gersheim.]
- 543 A similar Chamite, in which the proportion of the length exceeds the breadth; from Guntershofen near Buchsweiler in Alsace.
- 544 Small similar Chamites in a very marlaceous Limestone, with many Cochlitites; from Paris.
- 545 Still smaller, curved Chamites an inch long, with Pectunculites in Limestone; from Altorf.
- 546 A two inch Chamite which exhibits delicate streaks; from Querfurth.
- 547 A Chamite with some transverse wrinkles on Limestone; from the same place.
- 548 Very delicately longitudinally streaked Chamites; from the same place.
- 549 An entire, streaked Chamite with linear streaks, two and an half inches long and three broad; from Stühlhofen in Alsace.
- 550 Small, very delicately but closely streaked and imbedded Chamites; from Thuringia.
- 551 A large, more than three inch Chamite in which the streaks, particularly on the outer margins are distinct; from Querfurth.
- 552 Several Chamites in which the streaks on the surface are visible and sink a little deeper than in the foregoing; from Weimar.
- 553 Two Chamites furnished with very numerous moderately deep fulcations; from the same place.
- 554 A multitude of similar imbedded Chamites, some of them above two inches long and broad, with smooth ditto; from Weimar.
- 555 Two very deeply fulcated Chamites; from the same place.
- 556 A similar ditto, whose breadth notably exceeds the length; from the same place.
- 557 A Chamite somewhat compressed at the apex; from the same place.

558 Two

- 558 Two ditto, very much compressed, on Limestone; from Jena.
- 559 A streaked Chamite with a remarkable impression at the posterior margin; from the same place.
- 560 A petrification which from the Chamite, approaches very much to the Pectinite; from Alsace.
- 561 A Chamite, which not only on account of its deep fulcations but also of its beak, forms the transition into the Pectinite, on Limestone; from the same place.
- 562 Half of a Bucardite; from the Alp in Würtemberg.
- 563 A large five ribbed Ostrazite with very well-defined ribs; from Villabanya in the Bannat.
- 564 A large transverse wrinkled Ostrazite, very prominent, six inches broad and five long, with deep channels; from Transylvania.
- 565 A similar smaller ditto, three and an half inches broad and two long, also on Limestone; from the same place.
- 566 A very wrinkled Ostrazite, appearing as if fallen in in the middle of the back; from Henstadt in Rügenberg.
- 567 A piece of a very prominent Ostrazite, the upper part perforated by the Pholas; from Weymouth in England; its breadth exceeds seven inches, but the length is only three.
- 568 A similar piece of a large Ostrazite, only somewhat flatter, and broken off from the side; from the Bannat.
- 569 A piece of a still flatter Ostrazite, so exactly broken off, that the middle of a very deep channel is perfectly visible; from the same place.
- 570 A plate of a very curved Ostrazite, of which the length exceeds five inches and the breadth nine; from the same place.
- 571 An Ostrazite very deeply hollowed out in the center; from the same place.
- 572 A very flat but broad Ostrazite; from Aristorf in Swisserland.
- 573 A still flatter and also smoother Ostrazite; from Hilgeland.

- 574 Small wrinkled Ostreazites, in the manner of Walch's 17th Fig; from the Bannat.
- 575 Small irregular Ostreazites, in a rather marlaceous Limestone; from Linden near Hanover.
- 576 Two broad and smooth Terebratulites; from Gemmingen.
- 577 A somewhat longer Terebratulite; from Weimar.
- 578 A perfect portion of a similar, but rather small Terebratulite, which at the most measured an inch; from the same place.
- 579 A Terebratulite prominent and imbedded in Limestone, wherein also a groupe of Calcareous Spar occurs; from Blaubeuren in Würtemberg.
- 580 A Terebratulite very convex; from the Asser.
- 581 Terebratulites which particularly at the inferior margin appear to be doubly twisted; from the same place.
- 582 Extremely delicately streaked Terebratulites; from the same place.
- 583 More strongly streaked Terebratulites; from Poland.
- 584 Smaller Terebratulites, the size of large peas, with equally strong streaks; from the same place.
- 585 Terebratulites which are very strongly streaked, and once twisted at the inferior margin; from Metz in Lorraine.
- 586 Terebratulites very deeply fulcated and rather larger; from Champagne.
- 587 A very strongly streaked Terebratulite in which the twist reaches almost to the break; from the same place.
- Rem.* The streaked and doubly twisted varieties are called winged Ananites,
- 588 An Hysterolith; from Gothland.
- 589 A small Trigonelle on Limestone; from Weimar.
- 590 A somewhat larger Trigonelle, in which the plaits or folds are no longer so distinguishable; from Querfurth.
- 591 A similar but somewhat larger Trigonelle, still imbedded in Limestone; from the same place.
- 592 A Pinnite, only streaked transversely; from Switzerland.
- 593 A very prominent, split, smooth Gryphite, an inch and

- and half broad and nearly as long; from Gera in Russia.
- 594 A Gryphite which is a little flatter; from the same place.
- 595 A rather smaller Gryphite; from the same place.
- 596 A multitude of the same sort, which exhibit traces of delicate transverse wrinkles; from the same place.
- 597 A smaller Gryphite with a very deep split above; from Bebenhausen in Würtemberg.
- 598 Two still smaller and flatter; from the same place.
- 599 A Gryphite very flat, with a much less curve; from the same place.
- 600 A similar Gryphite on black compact Limestone; from Swarzburg.
- 601 A Gryphite, somewhat, but scarce perceptibly, streaked longitudinally; from Gera.
- 602 A similar Gryphite, with numerous distinct similar streaks; from Alsace.
- 603 Several Gryphites, partly very deeply fulcated, with smooth ditto in Limestone; from the same place.
- 604 A very long Mitilite, which seems to have been the *Militus anafiferus* Linnæi; from Thalheim in Würtemberg.
- 605 A somewhat smaller Mitilite, wrinkled transversely, on compact Limestone; from Thuringia.
- 606 A small, somewhat curved Mitilite, whose greatest dimension exceeds an inch and quarter; from Breigg on the Leitha.
- 607 Numerous Mitilites measuring about half an inch, with many Cochlites; from France.
- 608 A Cochlite broken off in the middle, whose shape is injured and thence not easily determined, but seems to belong to this place; from Jena.
- 609 Fragments of Solenites, the greatest dimensions of the largest being three inches, and the smallest half an inch; from the vicinity of Leipsic.
- 610 A piece of a large Solenite, whose greatest dimension exceeds six inches, and the diameter one and three-fourths; from Hesse.
- 611 Another piece of a similar Solenite, in which the greatest dimension exceeds three inches, but the smallest, one and a half; from the same place.

- 612 Quite flat small Musculites in compact Limestone, with Pectunculites; from Weimar.
- 613 Somewhat larger and in some respects similar Musculites, but with smooth shells; from Hungary.
- 614 Similar Musculites with both shells, and detached; from Italy.
- 615 Rather longer Musculites; from Benstadt near Halle.
- 616 Two moderately large and prominent Tellenites; from Iceland.
- 617 A Tellenite still longer, both absolutely and relatively; from Italy.
- 618 A Tellenite rather smaller and more prominent, two inches long and an inch and line broad, in compact Limestone; from Weimar.
- 619 A somewhat smoother Tellenite, a little twisted on one side; from Dikholtz in Hildesheim.
- 620 A smaller Tellenite, whose length is still more considerable in comparison to the breadth; from Prague.
- 621 An almost equilateral Tellenite; from Weimar.
- 622 A moderately flat Tellenite, whose sides are more unequal.
- 623 One shell of a very flat Tellenite, studded with Pectunculites on the under side; from the same place.
- 624 A large Mitilite, but somewhat damaged on one margin, whose length exceeds six, and the breadth three inches; from Würtemberg.
- 625 A similar rather prominent Mitilite, three inches long and one and three-fourths broad; from Langensalz.
- 626 A still smaller Mitilite, in which the transverse streaks are remarkable, two inches long and one and one-third broad; from the Teufelskrippe near Jena.
- 627 Two Mitilites, with a much greater difference of the proportion of the length towards the breadth, since the one exceeds two inches and a half, but the other is only one inch and two lines; from the same place.
- 628 Two Mitilites, with the transverse streaks every where visible, two and one-fourth inches long and one and one-fourth broad; from the same place.
- 629 A Mitilite pressed quite flat at the termination; from Weimar.
- 630 A great number of beautiful very distinctly deep wrinkled

wrinkled Mitilites, of at least two inches long, in Limestone; from the same place.

631 Several Mitilites about half so long, in Limestone; from the same place.

632 A small Mitilite, with partly fainter, and partly deeper wrinkles; from the same place.

633 A Mitilite two inches long, with wrinkles which are now distinct only on the half of the upper margin; from Langensalz.

634 A very flat Mitilite; from Querfurth.

635 A still flatter, very much elongated Mitilite; from Würtemberg.

636 A similar, only somewhat smaller Mitilite; from Weimar.

637 Three rare jagged Donazites, the largest of which is two inches long and two and a half broad; from Buchsweiler in Alsace.

Rem. The original is the so named Bettlermuschel, which is considered by Linné with perfect accuracy as a variety of the Venus Muscle.

638 Single branches of Coralliolites, in Limestone; from Switzerland.

639 Coralliolites more numerous and slender, in a Boulder found near Jena.

640 Single tubes of Coralliolites, which however seem to belong to the Madrepore, in Limestone; from Sweden.

641 Single Tubiporites; from the Island of Gothland.

642 Several Tubiporites heaped on one another; from the same place.

643 A very beautiful Tubiporite, four and a half inches long and two and a half broad, in which at least from twelve to sixteen tubes are connected; from the same place.

644 Single Madreporites, found in compact Limestone; from Gothland.

645 Madreporites projecting out of the Stone; from the Vicentine.

Rem. These seem to have been the Madrepora Prolifera Lin.

646 Several

- 646 Several Madreporites concreted together in one piece; from the same place.
- 647 A very slender Madreporite, on and in compact Limestone; from Blaubeuren in Würtemberg.
- 648 A tubular and at the same time a cellular shaped Madreporite; from Prague.
- 649 Madreporite, also tubular, but the tubes are filled up and so project, that it resembles the Roestone; from the Canton of Basle.
- 650 A beautiful Astroid; from Hedrington in England.
- 651 A similar Astroid, but somewhat abraded; from the same place.
- 652 Another sort of Astroid, in which the stars have a scopiform appearance.
- 653 A similar variety, but still more coarsely striated; from Sweden.
- 654 An extremely delicate Astroid, closely imbedded, so that the rays are discovered only, and with some difficulty, by holding it before the light; from Echterdingen in Würtemberg.
- 655 A very beautiful Mäandrite; from Fliessenbruch in the Upper Palatinate.
- 656 A smaller cohering Mäandrite; from Gothland.
- 657 A somewhat abraded Mäandrite; from the same place.
- 658 A very much abraded Mäandrite; from Pfeffingen in the Canton of Basle.
- 659 An exceedingly damaged Mäandrite, of which only fragments are to be seen; from Mietau.
- 660 A Fungite with an extremely short stem, not quite two inches in size; from Randberg in Switzerland.
- 661 An only one inch Fungite, with a stem proportionably much longer; from Derbyshire.
- 662 A two inch broad Fungite, whose height with the stem is one inch and one-third; from the same place.
- 663 A Fungite an inch and half broad and as much high; from the Mountains near Trieste in Austria.
- 664 Two irregular and rather indistinct Fungites, with long stems; from Transylvania.
- 665 A still more mishapen Fungite; from Norway.
- 666 Several, apparently imbedded in one another, short

3 H 2
stemmed,

- stemed, therefore indistinct Fungites; from Giergen in Suabia.
- 667 An abraded porous Fungite with an internal conical depression; from Basle in Swisserland.
- 668 A similar though smaller and not so much depressed porous Fungite; from Upper Austria.
- 669 Two Hippurites, on the inside of which cells are still discoverable; from Gothland.
- 670 Several Hippurites, shaped exactly like slippers; from the same place.
- 671 A very large Escarite, in which the entire piece is distinctly incrustated with the Retipore; from Nusschhof in the Canton of Basle.
- 672 A similar ditto, abraded in many places; from the same place.
- 673 An almost round cellular Escarite; from Gothland.
- 674 The same abraded in various places; from the same places.
- 675 A similar Escarite, distinct now only in some places, in a boulder; from the same place.
- 676 An Escarite which proves somewhat oblong cellular; from Arneburg.
- 677 A very long cellular Escarite, in which the transverse streaks are less distinct; from Berg.
- 678 A ditto, without observable transverse streaks; from Swisserland.
- 679 A similar Escarite, in which the longitudinal furrows sink very deep; from Gothland.
- 680 An Escarite with very crowded streaks; from Mietau.
- 681 An exceedingly finely curved-streaked Escarite, in a boulder of Compact Limestone which is cut through the middle and polished; from Swisserland.
- 682 A number of small aggregated Porpites; from Lorraine.
- 683 Very many ditto, quite detached, partly stellularly striated, the size of large peas; from Buchsweiler in Alsace.
- 684 A delicate Milleporite; from Gothland.
- 685 A Ceratopore, extremely probably of the Gorgonia Linnæi; from Neufchatel.

b, b. Rough, only slightly altered, inlaying extraneous bodies.

- 686 Small Sea-urchins still preserving their natural shells ; from Bareuth.
- 687 A piece of Compact Limestone with many inlaying Volutes, Strombites, Turbinites and purple snails ; from the vicinity of Frankfurth on the Main.
- 688 A small piece of Compact Limestone with an inlaying Röhrenschnecke ; from the Rhine.
- 689 Marlaceous Limestone with an incumbent shell of a Jacobs muscle which is two and three-fourth inches long and two broad ; from Oedernburg in Hungary.
- 690 A small delicately streaked ditto, an inch long ; from the same place.

e. Impressions of extraneous bodies.

- 691 The impression of a fish sceleton with the bones, on Compact Limestone ; from Mältricht.
- 692 A ditto in a straighter position, with a larger quantity of bones, therefore less distinct ; from the same place.
- 693 A smaller ditto, curved in the middle almost circularly ; from the same place.
- 694 A very slightly curved impression of a fish ; from the same place.
- 695 A small, moderately narrow, very slightly curved fish impression ; from the same place.
- 696 A shorter but broader ditto, ; from the same place.
- 697 A similar ditto which sinks very deep into the Limestone ; from the same place.
- 698 A similar delicate fish impression, which is overlaid with calx of Manganese forming a dendritical figure ; from the same place.
- 699 Limestone with the impression of a large fresh water crab ; from Winterhofen near Eichstadt.
- 700 A piece of Compact Limestone with impressions of Trochites ; from Weimar.
- 701 Ditto, with impressions of Belemnites ; from Switzerland.

702 The

- 702 The prominent impression of an Ammonite on Compact Limestone; from Mästricht.
- 703 The sunk impression of an Ammonite on the same Limestone; from the same place.
- 704 Marlaceous Limestone with impressions of Strombites; from Chaumont in Normandy.
- 705 The same with impressions of Chamites, with some ditto actually imbeded; from Thuringia.
- 706 The same with impressions of streaked Chamites; from the same place.
- 707 Compact Limestone with impressions of Pectunculites; from Weimar.
- 708 Compact Limestone with impressions of Mitilites; from Würtemberg.
- 709 The impression of a Scheiden-muscle in Compact Limestone, which is ground and glued to pasteboard; from Hesse.
- 710 An indistinct impression of a large muscle on Limestone; from the same place.
- 711 Small indistinct impressions of shells in a somewhat Marlaceous Limestone; from Champagnè.
- 712 Fungite impressions in a Marlaceous Limestone; from the same place.
- 713 Compact Limestone with the impression of a complete Bouquet; from the Austrian Netherlands.
- 714 A piece of Compact Limestone with the impression of a very large Oakleaf; from Cobourg.
- 715 A very distinct impression of an Oakleaf on Marlaceous Limestone; from the same place.
- 716 A very long similar impression of a leaf on the same sort of stone; from Blankenburg in the Hartz.
- 717 Several similar leaf impressions laying upon and in each other, of the same sort as is represented in Walch a. a. O. 21. tab. 3. only that these have indented margins; from Cobourg.
- 718 A similar leaf impression, but in which the lateral vessels of the leaves are either not at all or only with great difficulty discoverable; from Dresden.
- 719 A similar ditto, whose original however is longer, and the lateral vessels are a little more distinct; from Würtemberg.

720 Numerous

- 720 Numerous impressions of leaves, of the sort as in Gmelin a. a. O. 364. fig. of the 32d Tab.
- 721 A similar only shorter ditto.
- 722 An impressed leaf, wherein much more of the finest capillary vessels are visible, but in other respects seems to belong to this variety.
- 723 Another but unknown impression of the leaf of a tree; from Swisserland.
- 724 A similar ditto, of which only the half is distinguishable; from the same place.
- 725 A leaf impression in which it appears almost as if a true petrification had taken place; from the same place.

Rem. All these mere impressions are usually, but erroneously, called in general Biblioliths.

d. Compact Limestone mixed with other Fossils.

- 726 Compact Limestone overlaid in the clefts with granular ditto; from Upper Lusatia.
- 727 A piece of grey Compact Limestone, with much intermixed, small grained white Calcareous Spar; from the same place.
- 728 Grey Compact Limestone mixed with pyramidally crystallized Calcareous Spar and besides with many impressions of Fungites; from Upper Austria.

Rem. A great Geological Rarity.

- 729 Grey Compact Limestone with several acute hexædral pyramidally crystallized Calcareous Spar groupés, and numerous inlaying Pectunculites; from Thuringia.
- 730 Compact Limestone with inlaying granular ditto, Martial Pyrites and a calcareous Ammonite; from Hildesheim.
- 731 Compact Limestone with numerous Pectunculites and superficial Copper Pyrites; from Thuringia.
- 732 Yellowish and smoke grey Limestone, with crystallized Calcareous Spar on the surface, and much Galena intermixed in the stone; from the Hartz.

B. Swine.

B. *Swine Stone.*

- 733 Smoke grey inclining to yellowish grey Swine Stone; from Eisleben.

C. *Marle.**a. Independantly considered.*

- 734 Yellowish white indurated Marle nearly approaching to Compact Limestone; from Champagne.
 735 Yellowish grey similar indurated Marle; from Eisleben.
 736 Smoke grey indurated Marle; from Eisleben.
 737 Greyish white indurated Marle; from Champagne.

*b. With relation to enclosed extraneous bodies.**a. a. Stone Nuclei.*

- 738 A piece of indurated Marle inclosing two Echinites in high preservation; from Switzerland.
 739 A Belemnite in yellowish grey Marle; from Dresden.
 740 Indurated Marle with Orthoceratites, inlaying Belemnites and other petrifications; from the Canton of Bern.
 741 The same, with slender Orthoceratites and numerous Conchites; from the place.
 742 Sulcated Tubulites petrified to Marle; from the Northern Coast.
 743 A beautiful Ammonite in Marle, exceeding two inches in diameter; from Würtemberg.
 744 Petrified Nabelschnecke, in indurated Marle; from Thuringia.
 745 A moderately thick Trochit-like Cochlite, in the same sort of stone; from Petersberg near Mältrich.
 746 A multitude of Turbinites with numerous Conchinites in the same sort of stone; from the same place.
 747 The same with lower coils and different other Coch-lites and also Conchites; from the same place.

- 748 A small Turbinite in a very argilliferous indurated Marle; from Hüttenrode in the Hartz.
- 749 A small Diszite in indurated Marle; from Goslar.
- 750 A Pectinite in ditto; from Upper Lusatia.
- 751 Very numerous smooth Chamites with other Conchites in the same sort of stone; from Petersberg near Mästrich.
- 752 A Chamite somewhat longer; from Issy.
- 753 A moderately flat, streaked Chamite; from Upper Lusatia.
- 754 A piece of a Chamite deeply fulcated on the side; from the same place.
- 735 A very deeply fulcated Chamite; from Weimar.
- Rem.* This Marle loses itself by degrees into Limestone.
- 756 A large singularly fine Marlaceous Bucardite, four inches long and four and one-half broad; from Boll in Würtemberg.
- 757 Two Mitilites in indurated Marle; from Dresden.
- 758 Two large detached Mitilites which are two inches inches long, and one and one-half broad; from Swisserland.
- 759 Several small ditto, an inch and one-half long and ten lines broad; from Goslar.
- 760 A very singular muscle petrification which would almost seem to have been a Chiconite furnished with eight valves.
- 761 A very beautiful Escarite exactly like a net, with numerous Conchites on indurated Marle; from Petersberg near Mästrich.
- 762 A much more indistinct Escarite, on a Marle mixed with Limestone; from Thuringia.
- 763 A singular foliated Coralliolite, which is perhaps an imperfect Fungite; from Mästrich.
- 764 A Tubiporite which is shaped like a clove coral; from the same place.
- 765 A similar, more tubular Coralliolite, on the same Calcareous Marle; from the same place.
- 766 Several Marly petrifications which seem to be Carpolites; from Kommatau in Bohemia.
- 767 Perfectly similar, but more slender ditto; from the same place.

- 768 The same, less regular; from the same place.
 769 Other ditto, probably Carpolites, shaped more cylindrically; from Silesia.

b. b. Impressions.

- 770 Indurated Marle with the impression of a Mitilite strongly ribbed transversely; from Thuringia.
 771 A leaf impression precisely as in Gmelin, a. a. O. 32d Tab. fig. 364.
 772 Another leaf impression extremely like a Tulip-leaf; from Mältrich.
 773 An oblong depression in Marle, whose true extraneous origin can with great difficulty be discovered.

c. Marle mixed with other Fossils.

- 774 A beautiful large Calcareous Spar groupe in Marle; from Upper Lusatia.
 775 Thick superficial Copper Pyrites on indurated Marle; from Mansfeld.

B. Bituminous Marlite.

- 776 Greyish black thick flaty Bituminous Marlite; from Mansfeld.
 777 Ditto, moderately thick flaty, with a very straight fish impression eight inches in length; from the same place.
 778 A similar variety but with the neck of the fish somewhat curved; from the same place.
 779 A similar fish impression on Bituminous Marlite, but in which the whole body is curved in a circular form; from Rieselsdorf in Hesse.
 780 A ditto, in which the curvature is more parabolic; from the same place.
 781 A spheroid of Bituminous Marlite with a fish impression internally, in which the fins are still visible, and which very much resembles the Carpio carassus; from the same place.
 782 A similar shorter and proportionably broader spheroid with

with a similar fish in the center, but in which neither head nor tail nor fins are visible; from Mansfeld.

2. SANDSTONE.

a. Siliceous Sandstone.

a. a. Alone considered.

- 783 Greyish white small-grained Sandstone; from Voightland.
- 784 Greyish white more coarse-grained Sandstone; from Cobourg.
- 785 Greyish white mixed with greenish grey Sandstone; from the same place.
- 786 Brownish red Sandstone; from Eisleben.
- 787 Greenish grey red spotted Sandstone; from Naumburg.
- 788 Reddish brown Sandstone mixed with white, in which the former colour predominates and resembles a sort of Avanturine; part of a boulder found near Leipsic.
- 789 A perfectly oviform Sandstone pebble, five inches long, three and one-half broad and two inches thick; from the Pleiss.
- 790 Coarse-grained Sandstone, which at the same time is rather spongy; from Weissenfels.
- 791 Small-grained Sandstone, with inlaying separate coarse Quartz grains; from Thuringia.
- 792 Extremely fine-grained Sandstone, therefore graduating into Quartz; from Spa.

b. b. With Petrifications.

- 793 A petrified Sea Star with five arms, on Sandstone; from Sienna in the Duchy of Florence.
- 794 A similar piece, with three Sea Stars penetrating each other; from the same place.
- 795 A petrified Turkish Turban, in Sandstone; from Dresden.
- 796 A small Echinite of the sort called Egg-urchin, but low-

- er, with the mouth and anus both visible; from Batsch in Transylvania.
- 797 A Turbinite in Sandstone; from Pontamousson in France.
- 798 A Pectinite in Sandstone; from Pria.
- 799 A streaked Chamite in Sandstone, with both shells still remaining; from Upper Lusatia.
- 800 Several smooth Chamites in Sandstone; from the vicinity of Naumburg.
- 801 A single delicately streaked Chamite attached by the point; from the same place.
- 802 A Trigonelle in Sandstone, one and an half inch broad and nearly as long; from Switzerland.
- 803 A large petrified Heart Muscle in Sandstone; from the Waltersdorf-Buchberg in Upper Lusatia.
- 804 Similar petrified Muscles, but not so distinct as the foregoing and flatter; from the same place.
- 805 A Mitilite four and a half inches long and two broad; from Upper Lusatia.
- 806^a Another damaged on one side, therefore only three inches long and one broad; from Naumburg.
- 806^b A very large piece of Sandstone with extremely numerous inlaying Chamites and Turbinites, which are in a state of very beautiful conservation; from Hesse.
- 807 Porpites a little compressed on the under side; from Mechlenburg.
- 808 An extremely fine Tubiporite, most probably of the Tubipora Musica; from Sweden.
- 809 Another also very beautiful Tubiporite (perhaps the Tubipora Captenularia); from the same place.
- 810 A very much abraded Tubiporite; from Sweden.
- 811 A Fungite, two inches in diameter and one and three-fourths high; from Lubec.
- 812 A net-like Escarite; from Switzerland.
- 813 A fine streaked Escarite, net-like only in one place; from the same place.
- 814 A very much abraded Escarite; from Poland.

c. c. Mixed with other Fossils.

- 815 Sandstone with inlaying Flint; from Poland.
- 816 Very compact black Sandstone with disseminated Cinabar

Cinabar and the so called Quicksilver Kugelerz;
from Idria.

b. Argillaceous Sandstone,

a. a. Independently considered.

- 817 Yellowish white Argillaceous Sandstone; from Pirna.
- 818 Greyish white small-grained Argillaceous Sandstone;
from Naumburg.
- 819 Yellowish grey Argillaceous Sandstone; from Co-
bourg.
- 820 Pale greenish grey Argillaceous Sandstone; from
Kiphaüser in Thuringia.
- 821 Fine-grained yellow and grey speckled Argillaceous
Sandstone; from England.
- 822 Reddish and white speckled Argillaceous Sandstone;
from Mansfeld.
- 823 Argillaceous Sandstone mixed with more red; from
Kiphaüser.
- 824 Dark reddish brown Argillaceous Sandstone; from
Cobourg.
- 825 Small-grained red Argillaceous Sandstone; from Up-
per Lusatia.
- 826 Small-grained Argillaceous Sandstone mixed with
coarse-grained; from Langenau in the Saalkreis.
- 827 Quite coarse-grained Argillaceous Sandstone, with
adhering fine-grained; from Cobourg.

Rem. It approaches to the Grey Wacke.

- 828 Very dissimilarly grained Argillaceous Sandstone,
with very coarse-grained, indeed in some places large-
grained Quartz; from Upper Lusatia.
- 829 Similar coarse-grained Sandstone, with much inter-
mixed decayed Felspar, so that the whole passes into
Porphyry; from the Saalkreis.

b. b. Petrifications.

*b. b. Petrifications.**α. Stone Nuclei.*

- 830 An Ichtiolite, upon and in Sandstone; from Hesse.
- 831 A large Buccinite in Sandstone; from Issy near Paris.
- 832 A petrified Jacob's Muscle with broad ribs, three inches long and two broad; from Champagnè.
- 833 A Jacob's Muscle very regular, with both ears preserved, nearly three and an half inches long and three broad, with some Vermiculites; from the same place.
- 834 A quantity of small Pectunculites; from Thuringia.
- 835 One shell of an Ostreazite; from Biberach in Swabia.
- 836 A piece of a large Ostreazite; from the same place.
- 837 A petrified hooped Chamite; from Upper Lusatia.
- 838 A small smooth Chamite; from Biberach.
- 839 Carpolites occurring not sparingly in a piece of Sandstone; from Bohemia.

β. Rough Shells.

- 840 A piece of Sandstone with a still rough Jacob's Muscle, laying on the surface; from Quedlinburg.
- 841 Sandstone with very numerous inlaying rough Tellinites; from the Old Burg near Weimar.
- 842 A three inch long and nearly as broad Tellinite, on Sandstone; from Suabia.
- 843 Another of this kind, in which both shells cohere thro' the medium of Sandstone; from Lorraine.
- 844 Sandstone with many inlaying rough Mytilites; from the same place.
- 845 Very coarse Sandstone, with many incumbent impressions of leaves of trees; from Altsattel.

γ. γ. With other Minerals inlaid.

- 846 Sandstone inclosing a large piece of Quartz; from Kiphauser.
- 847 Sandstone with inlaying Calcedonic flint; from Poland.
- 848 Sandstone

- 848 Sandstone with inlaying Argillite upon Limestone; from Unterrussdorf in Upper Lusatia.
- 849 Micaceous and very flaty Sandstone; from Mansfeld.
- 850 Argillaceous Sandstone, with much intermixed Martial Pyrites, Cinabar, and some Calcareous Spar; from Idria.
- 851 Sandstone with intermixed Galena, vitreous Copper Ore, also some compact brown Iron Stone and much Calcareous Spar; from Camsdorf.
- 852 Sandstone with much vitreous Copper Ore and some Malachite, of which the former appears to traverse it in slips; from the mine Frolova, in the Werchoturian district of the Urals, in Siberia.
- 853 Sandstone, intermixed in addition with Copper Pyrites and a little fibrous Malachite; from the same place.

d. d. Fossils occurring in it forming Veins.

- 854 Slate Coal from Wehrau in Upper Lusatia, which occurs there in Sandstone.

c. Ironshot Sandstone.

a. a. Considered by itself.

- 855 Ochre yellow Ironshot Sandstone; from Mansfeld.
- 856 A very flat boulder of yellow Ironshot Sandstone; from Leipsic.
- 857 A large boulder of red Ironshot Sandstone; from the same place.

b. b. With respect to Extraneous Bodies.

α. Stone Nuclei.

- 858 Very Ironshot Sandstone, with inlaying Screwstones; from Upper Lusatia.
- 859 A similar piece, with very large Screwstones, together with an impression of the same in one place; from the same place.

860 Ironshot

- 860 Ironshot Sandstone, with inlaid Pectinites; from Marienthal.
- 861 An extremely Ironshot Sandstone, with many Trigonelles; from Barnthal near Goslar.
- 862 A petrified Heart Muscle, in which the Nucleus is Calcareous, and the upper part Ironshot Limestone; from the same place.
- 863 A rather indistinct Chamite in Ironshot Sandstone; from Weimar.
- 864 Three Hystrerolites in Ironshot Sandstone; from Mayence.

β. Rough Extraneous Bodies found in it.

- 865 Ironshot Sandstone with many inlaid rough Tellinites; from Mayence.
- 866 Sandstone with rough shells of the common Gien Muscle; from Würtemberg.
- 867 Sandstone, in which also a pair of Nerites are imbedded; from the same place.
- 868 Sandstone with impressions of Pectinites; from Thuringia.

B. Grey Wacke or Rubble Stone.

a. Alone considered.

- 869 A very coarse-grained Grey Wacke, consisting of Siliceous Schistus, Quartz, and common Sandstone as a cement; from Clausthal in the Hartz.
- 870 Rather small-grained Grey Wacke, of the same constituent parts; from the Upper Hartz.
- 871 A green Wacke, spotted with white; from Osterröderberg.
- 872 Moderately small-grained Grey Wacke, only here and there with solitary coarse grains; from the Hartz.
- 873 Uniformly small-grained Grey Wacke, with incumbent Argillite; from the same place.

b. With

b. With other Bodies.

- 874 A Mitilite in Grey Wacke; from the Hartz.
875 Grey Wacke with intermixed and traversing Calcareous Spar; from the same place.
876 Grey Wacke with incumbent Gypsum and disseminated Martial Pyrites; from Cobourg.

C. Pudding Stone.

- 877 A reddish brown, spotted with yellowish grey, Pudding Stone; from England.
878 Reddish brown, spotted with greyish white, Pudding Stone; from the Western coast of the Caspian Sea.

Rem. Hitherto they were only Quartz grains that occurred.

- 879 A Pudding Stone in which beside the Quartz grains, indurated Clay and Siliceous Schistus occur in a very Ironshot mass; from West Gothland.
880 A very singular Pudding Stone, consisting of compact brown Ironstone, which is cemented in some places by Zeolite, both between themselves and also with some particles of Quartz; from Sweden.
881 A Pudding Stone in which a large quantity of Argillite occurs; from Cobourg.

Rem. This is the transition into Grey Wacke.

- 882 A similar Pudding Stone, in which both Hornstone and a Quartz Spheroid the size of an hen's egg, lay enveloped; from the same place.
883 A perfectly similar Breccia, with numerous traces of sea weed having formerly lain upon it; from the same place.

3. MINERAL COAL STRATA.

A. *Slate Clay.*a. *Independently considered.*

- 884 Smoke grey Slate Clay; found between Halle and Eisleben.
885 Greyish black Slate Clay; from Wettin in the Saalkreis.

b. *On account of the Impressions.*

- 886 Slate Clay with long impressions of Sedge; from Wettin in the Saalkreis.
887 A piece of Slate Clay with similar, but rather broader impressions; from the same place.
888 Slate Clay with very numerous impressions, both of Sedge and thorny Euphorbium; from Westphalia.
889 Slate Clay with an impression of the herb Horfe-tail; from Potschappel near Dresden.
890 Slate Clay with a very narrow leafy impression of the herb called Featherball; from Silesia.
891 A similar reddish grey Slate Clay, with two leaf impressions, which are probably of the Aspen-tree; from Rheinsdorf near Zwickau.
892 A similar leaf impression on Slate Clay, in which, however, the leaf appears to be broken off at the point; from the same place.
893 Another leaf impression on Slate Clay; from the Saalkreis.
894 An impression of the Fern plant (*Phytolithus filicis* Linn.) on Slate Clay; from Burg near Dresden.

B. *Mineral*

B. *Mineral Coal itself.*

- 895 Massive pitch Coal in Slaty Coal; from Burg near Dresden.
 896 A flaty Coal very rich in Petrol; from Potschappel.
 897 A much inferior mineral Coal, found upon and in Slate Clay; from Burg.

4. CHALK STRATA.

A. *Chalk itself.*

- 898 A piece of common white Chalk; from England.
 899 A very beautiful chalky Echinite, of the variety called Egg-urchin; from Oxfordshire.
 900 A chalky Echinite somewhat damaged, whose section approaches nearer to a circle than an ellipse; from the same place.
 901 A petrification of a Turkish Turban; from the Co. of Kent.
 902 A Turkish Turban somewhat flatter, and the empty upper surface exactly in the centre; from the same place.
 903 Another five-leaved figured Echinite (petrified death's head); from France.

Rem. The mouth and anus are still very distinct.

- 904 A small, nearly similar, but also five leaved Echinite, only three-fourths of an inch long; from the Veronese.
 905 A similar Echinite indistinct and compressed, more circular than oval.
 906 Thorny Echinite spines, with the chalk in which they were found; from the Co. of Kent.
 907 Separate granular Verucæ of the Echinite shell; from the same place.
 908 A Chalk petrification resembling fruit, but which is probably

probably only a disfigured Echinite prickle; from the same place.

- 909 Two very beautifully shaped petrified Heart Muscles, nearly two and one-half inches long, in Chalk; from Wolfenbottle.
- 910 Two Heart Muscles smaller, more curved and abraded; from the same place.

B. *Flint.*

a. *Without reference to the Extraneous Bodies.*

- 911 Yellowish grey Flint; found as a pebble near Leipsic.
- 912 Light smoke grey Flint; from the same place.
- 913 Reddish brown Flint; from Poland.
- 914 A smoke and whitish grey veined Flint; from the same place.
- 915 An almost quadrangular Flint pebble; from Upper Lusatia.
- 916 Bulbous Flint; from the same place.
- 917 A similar bulbous Flint pebble, which has almost the appearance of a petrified bone; from the Asser.
- 918 Flint with dendritic delineations; found in the vicinity of Leipsic.
- 919 A piece of Flint passing into Hornstone thro' its fine splintery fracture; from Poland.
- 920 Another Flint possessing a little lustre in addition to the splintery fracture, and therefore graduating into Quartz; from the Clay-pit near Leipsic.

b. *Petrifications.*

a. a. *Stone Nuclei.*

- 921 An extraordinary conical Echinite.
- 922 A somewhat lower Echinite, on which the compartments and Verucæ show that it belongs to the foregoing variety.

923 An

- 923 An Echinite a little disfigured, three inches broad, two long, and two and three-twelfth's high.
- 924 An Echinite proportionally lower, of the same sort, two inches three-twelfth's long, one and two-thirds broad, and one three-fourths high.
- 925 Another Echinite a little flatter, two one-half inches long, one two-thirds broad and as high.
- 926 An Echinite on which are still many traces of the destroyed shell.
- 927 A similar lower Echinite, somewhat damaged at one side, but whose length must have exceeded three inches, its breadth two, and its height one and one-third; from Transylvania.
- 928 An Echinite of about the same size, but undoubtedly of the species called sea crown; from Switzerland.
- 929 A very flat Echinite of this kind broken on one side, hence the inclination of the Lamellæ seems oblique; from England.
- 930 A similar Echinite, which, as is evident, thro' natural injuries, has suffered damage on every side, which must have been however of very old date, as it is rounded off quite smooth.
- 931 A very high Echinite of the kind called sea-ball; from Bibra in Hesse.
- 932 An Echinite absolutely, as well as relatively lower.
- 933 A small Echinite, about ten-twelfths of an inch high and one inch broad.
- 934 Four similar Echinites of inferior relative height.
- 935 Two Echinites of still less height.
- 936 A moderately small Echinite, whose base is concave, and which seems to be intermediate between the former and this variety.

Rem. The last described Echinites have all a circular base.

- 937 A small almost conical Echinite rubbed smooth, terminating underneath distinctly in four compartments; from Brussels.
- 938 The larger moiety of a similar Echinite, split parallel to its axis.
- 939 A doubly broken Echinite, with the planes of the fracture set nearly at right angles with each other.

940 An

- 940 An Echinite which had been moderately low, broken very much awry.
- 941 An Echinite broken off almost parallel to the base; from England.
- 942 Two fragments of Echinite shells, in which traces of the Verucæ and cells of the original are still distinct.
- 943 Three moderately long and thick, though not more thorny, club-shaped Echinite spines; from England.
- 944 Similar fragments with the Verucæ still very rough; from the same place.
- 945 Long slender Echinite spines; from Italy.

Rem. All the foregoing to which native places are not assigned, are from Poland,

- 946 A Flint with inhering delicate Echinite spines, and perhaps slender coral spikes; from Dikfield near Hamburg.
- 947 An Ammonite in Flint; from the Leipsic clay-pit.
- 948 A sort of Petrified sea sponge; from Switzerland.

b. b. Rough Shells.

- 949 Flint, with still rough inlaying Chamites; from England.

c. c. Impressions.

- 950 A Flint, with the impression of a minute sea star; from Leipsic.
- 951 Flint with delineations and impressions of Echinite spines; from the Freienwald Sand-Mountain.
- 952 Flint, with the impression of the small shield of an Echinite; from Littau.
- 953 Flint, with small round impressions which probably might have originated from Sea-urchin needles; from the same place.
- 954 A Flint with impressions of streaked Chamites; from Poland.
- 955 Flint, with the impression of a somewhat indistinct Conchite; from Jena.

956 Flint,

- 956 Flint, with a delicate coating of an Escarite; from Poland.

5. COMMON SALT STRATA.

- 957 A large Lamellar piece of Common Salt; from Wielitza in Poland.

6. GYPSUM STRATA.

- 958 A nearly reniform piece of compact Gypsum, traversed by foliated ditto; from England.
- 959 Delicately fibrous Gypsum; from Thuringia.
- 960 Striated Gypsum; from the same place.
- 961 Foliated Gypsum with small granular distinct concretions; from Eisleben.
- 962 Fine granular pale carnation red Gypsum, intermixed with greenish indurated Clay; from the same place.
- 963 Fine granular Gypsum, wherein the fine granular distinct concretions are so piled on one another, that the whole acquires a striated appearance; from the same place.
- 964 Extremely fine granular grey Gypsum passing into compact, with adhering broad foliated Gypsum; from Ilmenau.
- 965 A moderately long rhomboidal fragment of broad foliated Gypsum; from Bottendorf.
- 966 A piece of broad foliated Gypsum with coarse granular distinct concretions; from Upper Lusatia.

7. IRON CLAY STRATA.

A. Iron Clay itself.

a. Alone.

- 967 Dark clove brown Argillaceous Ironstone; from Wehrau.

968 Yellowish

- 968 Yellowish brown Argillaceous Ironstone; from Ukkermark.

b. With Petrifications.

- 969 A Trochite-like Cochlite in Argillaceous Ironstone; from Wehrau.
 970 Small, rather elongated Mitilites in Argillaceous Ironstone, with many impressions; from the same place.
 971 Larger and more distinctly streaked Mitilites, under the same circumstances; from the same place.
 972 Argillaceous Ironstone with impressions of Strombites; from the same place.
 273 Argillaceous Ironstone with many very perfect impressions of these same Mitilites; from the same place.
 974 Argillaceous Ironstone with impressions of Mitilites, but so many heaped on and thro' each other, that they are thence become indistinct; from the same place.

B. Loam.

- 975 A Trochite-like Cochlite in bluish Loam; from the same place.
 976 A Trochite-like Cochlit, with the coils nearer to each other; from the same place.
 977 A Turbinite in smoke grey Loam; from the same place.
 978 A Pectinite in similar, but more sandy Loam; from the same place.
 979 Grey Loam with inlaying, partly still rough, originals of the Pectunculites; from the same place.
 980 A considerably Ironshot Loam, with rough shells apparently of Chamites; from Ukkermark.
 981 A large quantity of the rough shells of originals of the Mitilites, in Loam; from Wehrau.
 982 A very Ironshot Loam with impressions of shells; from the same place.

C. Bituminous

C. *Bituminous Shale.*

- 983 Tolerably regular, but rather thick flaty brownish black Bituminous Shale; from the same place.
- 984 A rare variety of Bituminous Shale of an imperfectly conchoidal fracture, thence seeming to pass into black Chalk; from Russia.

8. *CALAMINE STRATA.*

- 985 Yellowish grey Calamine with a most extraordinary Coral petrification, the original of which seems to be the *Tubipora catenularia* Linn: from Poland.
- 986 Massive Calamine with much inlaying Galena; from Olkutsch in Poland.

9. *MARTIAL PYRITES STRATA.*

- 987 Botryoidal Martial Pyrites with an Ammonite partly hid in it; from Gothland.
- 988 Crystallized Martial Pyrites, in which the largest coil of an Ammonite is distinctly to be seen; but the remainder is hidden; from Boll in Würtemberg.
- 989 A large piece of Martial Pyrites with many inlaying Chamites and rough Strombites, and also Turbinites which however are mostly broken off to the one-half; from D'Ayen in Champagnè.

APPENDIX TO THE PRIMÆVAL AND MARIGENOUS ROCKS.

A. *For the natural history of Veins in the former.*

- 990 Large-grained Granite traversed by a vein above an inch broad of fine-grained ditto; from Upper Lusatia.
- 991 A piece of Siliceous Schistus, traversed quite thro' by two narrow slips of white Quartz parallel to each other, but a third intersects both, and only slightly alters its direction thereby; from the same place.
- 992 A piece of Argillite, traversed by a slip of Siderocalcite which divides in one place, but in another is united with smaller slips under acute angles; from the Adam Heber at Schneeberg.

Rem. This specimen shows most distinctly the true nature of veins, since the direction of this large slip intersects almost at right angles that which the flates of the Stone take.

B. *For the natural history of Veins in the Marigenous Rocks.*

- 993 Greyish black compact Limestone, with very numerous slips of Calcareous Spar, partly parallel and partly intersecting each other under right and acute angles.
- 994 A piece of Bituminous Marlite with a traversing vein on which groupes of Martial Pyrites occur, wherein the direction of the vein visibly intersects the slate at right angles, which gives great value to this specimen; from Sangerhausen in Mansfeld.

THIRD CLASS.

VOLCANIC ROCKS.

I. GENUINE VOLCANIC PRODUCTIONS.

1. LAVA.

- 995 A piece of rough Lava; from Vesuvius.
 996 A Pumice-like brown Lava, with inlaid white Schörl Crystals so called; from the same place.

Rem. These have the greatest resemblance to white Topaz Crystals,—tho' I do not venture to determine this with certainty.

2. PUMICE.

- 997 A piece of bright greyish white Pumice; from the Lipari Islands.
 998 Yellowish grey Terras; from Andernach.

Rem. It is not yet satisfactorily determined under what predicament this comes, since hitherto, a partizan of the Volcanic System only has described this country.

II. PSEUDO VOLCANIC ROCKS.

- 999 Reddish, yellowish and blackish grey burned Clay, very full of blebs; from Bil in Bohemia.
 1000 A piece of bluish grey Basalt spotted with yellow, altered by a superficial fire; from the Habichwald near Cassel.
 1001 A similar piece inclining to reddish, but which is not near so much altered; from the same place.
 1002 A very porous light Stone Coal; from Wettin in the Saalkreis.

FOURTH CLASS.

PRODUCTIONS OF ALLUVIAL MOUNTAINS.

1. STREAM-WORK MINERALS.

- 1003 Tin Stone in Quartz, broken from a boulder; from the Eibenstock Stream-works in the Erzgebirge.
 1004^a Two Crystals of black Shörl; from the same place.

2. LOWLAND FOSSILS.

A. Sand Land.

- 1004^b Amber, with inlaying insects in some places; from the sea-coast of Prussia.
 1005 Lowland Argillaceous Ironstone; from Lower Lusatia.
 1006^a The upper jaw bone with many of the grinders and one tusk of a Polar Bear, (*ursus maritimus* Linnæi).
 1006^b The same, without any teeth, therefore discoverable only by the agreement of the outline with the foregoing.
 1007 A piece of the under jaw bone of a large animal of the Mammalia class with grinders and a Tusk.
 1008 A piece of a similar jaw bone without the tusk.
 1009 A small piece of a jaw bone of an animal of this sort furnished at present only with the tusk.
 1010 Many separate similar tusks and grinders, some of them still with their roots.

Rom. All these spec. from 1006^b. to 1010 are from the Gai-benreuterhöhle in Bareuth.

- 1011 Small sharp teeth probably of a young Lion; from the Baumans hole in the Hartz.
 1012 A piece of a large jaw bone perhaps of an Elephant, which is very much altered; from the same place.

1013 A

- 1013 A smaller ditto, in which the edges are actually changed to Opal; from Bakabanya in Lower Hungary.
- 1014 A piece of a petrified hip-bone of an animal of the Mammalia class; from the Baumans hole.
- 1015 A small fragment of a similar bone in which the interior structure is still distinct; from the same place.
- 1016 Many similar fragments of bones connected together; from the same place.
- 1017 A similar assemblage, in which likewise fragments of Hornstone occur, connected by a Calcareous matter; from the same place.
- 1018 A similar Conglomerate in which a large grinder is discoverable, together with vestiges of Coal.
- 1019 A similar mechanical union of animal bones and (apparently) small sharp teeth, which however are no longer easy to be known as they are much damaged; from the Scharzfeld hole in the Hartz.
- 1020 A crabscaw in Sand merely agglutinated.

W O O D.

a. *Fossil Wood.*u. *Alone considered.*

- 1021 Reddish white Fossil Wood perfectly fine and easily frangible; from Krunz near Bakabanya in Lower Hungary.
- 1022 Reddish grey, somewhat coarser and flaty ditto; from Bohemia.
- 1023 Ditto, somewhat finer, in which the pith is very distinct; from the same place.
- 1024 A piece of Fossil Wood, with vestiges of the rind yet white, therefore evidently of the Birch tree; from the Lake Onega in Siberia.
- 1025 a A large fragment of a root of Fossil Wood, in which the structure is yet very distinct, although it is of considerable weight; from Kemniz in Saxony.

1025 A

- 1025^b A similar piece, which exteriorly still perfectly retains the rind-like structure, but interiorly passes compleatly into the following variety; from the same place.
- 1026 A piece of a branch, ten inches long and three inches thick; from Siberia.
- 1027 A piece of greyish white narrow cellular Fossil Wood; from Bohemia.
- 1028 Smoke grey, delicate and curved fibrous Fossil Wood, with knots still visible at the side; from Kemniz in Saxony.
- 1029 Very confusedly interwoven fibrous ditto, of a red colour; from Presniz in Bohemia?
- 1030 Broad striated ditto; from the Pit Frohlowa near Ohrenburg in Siberia.
- 1031 A piece of ditto of a very Quartzzy appearance on the transverse fracture, therefore approaching very nearly to the following variety; from Kemniz in Saxony.
- 1032 A piece of ditto of a nearly earthy appearance in the transverse fracture; from the same place.

β. With regard to other intermixed parts.

- 1033 Fossil Wood overlaid with an extremely delicate Quartz groupe; from Judenberg near Halle in the Saalkreis.
- 1034 A piece of ditto, overlaid on the outer side with distinguishable small Quartz Crystals in quantity; from the same place.
- 1035 Fossil Wood covered on two sides with cellular and drusy Quartz; from Siberia.
- 1036 Ditto, on coarse grained Sandstone; from Altsattel in Bohemia.
- 1037 The same, on a brown very porphyritic Quartz Breccia; from Bohemia.
- 1038 A piece of ditto, penetrated with a large quantity of Iron Ochre.

b. Woodstone.

*b. Woodstone.**a. Considered independantly.*

- 1039 Dark brownish black Woodstone; from Falkenau in Bohemia
- 1040 A little lighter ditto, which proves extremely Quartz; from Kemniz in Saxony.
- 1041 Honey yellow ditto; from Devon in Transylvania.
- 1042 Greyish black somewhat spotted with red ditto; from Kemniz.
- 1043 Yellowish grey, smoke grey and brownish red annulated Woodstone; from the same place.
- 1044 Dark reddish brown, a little streaked with whitish Woodstone; from Bohemia.
- 1045 Yellowish grey ditto, somewhat traversed by greyish white streaks; from the same place.
- 1046 Dark blackish grey ditto, traversed by rather curved narrow parallel stripes, which are most distinct where the piece is slightly polished; from the same place.
- 1047 Yellowish and white alternating and narrow striped Woodstone; from Hungary.

Rem. It forms the true transition into Ligniform Opal.

- 1048 Black ditto, extremely delicately veined with reddish and white; from Kemniz.
- 1049 Blackish and yellowish brown shaded ditto; from Kemniz.
- 1050 Dark smoke and yellowish grey, a little red and white spotted Woodstone; from the same place.
- 1051 Yellowish grey ditto, with numerous roundish red spots; from Bohemia.
- 1052 Greyish black ditto, sprinkled with yellowish and reddish; from Kemniz, as are also the four following.
- 1053 Dark greyish black ditto, with reddish and white, black annulated, elliptical spots.
- 1054 Somewhat brighter blackish grey ditto, spotted in the same manner.

1055 Yellowish

- 1055 Yellowish grey, similarly indeed, though indistinctly and not so strikingly beautiful spotted Woodstone.
- 1056 Blackish and yellowish grey and also greyish white flamed (Geflamter) Woodstone.
- 1057 Yellowish and smoke grey flamed, green spotted ditto; from Cobourg.
- 1058 Reddish and whitish grey shaded ditto, spotted with blackish grey; from Toplitz in Bohemia.
- 1059 Pale peach bloom red and blackish as also Ochre yellow extremely delicately veined and sprinkled very beautiful Woodstone; from Kemnitz in Saxony.
- 1060 Woodstone with deep sunk tetrahædral cells.

Rem. This passes into Flint.

β. On account of the inlaying particles.

- 1061 Woodstone passing into Siliceous Schistus, with an adhering small grained Quartz breccia; from Kemnitz.
- 1062 Yellowish grey ditto, overlaid on two sides by an entire pyramidal Quartz groupe; from Siberia.
- 1063 Black Woodstone, with extremely thin superficial compact Malachite; from the same place.
- 1064 The same, both disseminated and superficial, with an adhering slip of Quartz; from the same place.
- 1065 Woodstone intimately penetrated with Malachite and mixed with an extraordinary quantity of drusy Quartz.

c. Bituminous Wood,

- 1066 Light clove blown, delicately fibrous, Bituminous Wood; from Beichlitz.
- 1067 A little darker, somewhat flaty ditto; from the same place.
- 1068 A still darker, more combustible and slightly conchoidal, Bituminous Wood; from Upper Lusatia.
- 1069 Ditto, with actual inlaid jet; from the same place.

B. Loamland,

B. *Loamland.*

- 1070 Very poor Argillaceous Ironstone; from the Hartz.

C. *Moorland.*

- 1071 Moderately firm Turf; from Holland.
1072 A Turf very poor in Petrol, but abounding in roots of vegetables; from Holstein.

APPENDIX

TO THE

SYSTEMATIC AND GEOLOGICAL COLLECTIONS,

ILLUSTRATING THE PRODUCTION OF FOSSILS.

I. MANNER OF THE PRODUCTION.

In the moist way.

- 1 Lamellar Calcareous Sinter; from Annaberg in the Erzgebirge.
- 2 Calcareous Sediment; from Carlsbad.
- 3 A large piece of the so called Osteocolla; from Tenstadt near Langensalz.
- 4 Stalactitic reniform Iron Ore; from Bohemia.
- 5 A coarse-grained Breccia composed of particles of Quartz, Hornstone, and Siliceous Schist.

2. ORIGIN OF THE PRODUCTION.

a. By juxtaposition. (therefore evident.)

- 6 Greyish white compact Limestone, exteriorly having the appearance of a Flint, and interiorly actually intimately mixed with Siliceous Earth; from Poland, as also the four following.
- 7 A much harder, tho' still effervescent, pale yellowish grey Limestone.
- 8 Yellowish grey Flint so mixed with the foregoing Limestone, that in some places, the one appears to

run into the other, but in others there is a marked separation.

- 9 Dark yellowish grey Flint, with a rind of the same Limestone, which is also here and there internally disseminated.
- 10 Yellowish brown, slightly Calciferous Hornstone, upon and in which drusy Quartz occurs.

b. By Decomposition.

- 11 Sparry Iron Ore decomposed almost to Iron Ochre, with a beautiful Calcareous Spar groupe; from Saalfeld.

3. *RELATIVE AGE OF THE PRODUCTION.*

A. Contemporaneous.

- 12 Yellow Blende, very thickly mixed with Galena and some Martial Pyrites; from Scharfenberg.
- 13 A mixture of Galena, Copper and Martial Pyrites in Quartz and Fluor Spar, with some Lamellar Baroselenite; from Freudenstein near Freiberg.

Rem. Of this, at most the Martial Pyrites only can be of somewhat later origin.

- 14 A mixture of much Martial Pyrites, some brown Blende and Galena, and also a very little Quartz; from Freiberg.

B. At different periods.

- 15 A very large-grained Quartz Breccia in a very petrosiliceous basis; from Upper Lusatia.

Rem. This mass must have been necessarily yet soft where the Quartz already formed entered it.

16 Quartz,

- 16 Quartz with impressions of Fluor Spar; from the Isaac near Freiberg.

Rem. That this Fluor Spar must have already possessed its cubic shape before the concretion of the Quartz, is from this incontrovertible.

- 17 A Quartz groupe upon which pyramids of Calcareous Spar occur, but the whole rests on an Argillite mixed with Calcareous Spar and Martial Pyrites; from Boizza in Transylvania.

Rem. Here the Quartz groupe is evidently younger than the Argillite mixed with Massive Calcareous Spar and Martial Pyrites, but the Pyramids of Calcareous Spar laying on the surface were formed latest of all.

- 18 Compact brown Iron Stone with an extremely thin coating of minute Botryoidal Calcedony, but intermixed with contemporary Quartz; from the vicinity of Schneeberg.

- 19 Pyramidally crystallized Quartz on Massive ditto, with much superficial Mica; from Gera in the Erzgebirge.

- 20 Massive Quartz supporting pyramidally crystallized ditto, on this again a Siderocalcite groupe, in other places tabularly crystallized Baroselenite, and on the surface of all this, Octohædral Copper Pyrites; from the Hartz.

- 21 Quartz with impressions on both sides, with compact Baroselenite, but on the upper part of this a Quartz groupe, and at the side inhering granular Galena; from the Isaac near Freiberg.

- 22 Basalt with firmly intermixed Hornblende Crystals (Basaltine,) also delicate drusy Zeolite which is of later origin; from Fulda.

- 23 A mixture consisting of a large quantity of Quartz and Martial Pyrites, as also brown Blende with crystallized red Ore of Manganese in drusy cavities, which is therefore of later formation; from Nagaya in Transylvania.

- 24 A piece of Quartz which is mixed with much Copper Pyrites, afterwards coated with drusy Quartz, Calcareous Spar and Copper Pyrites, as also tabular Baroselenite, therefore all these latter are of later origin; from the Hartz.

C. Uncertain

C. *Uncertain.*

- 25 A Spheroid of Calcedony in some places rather decayed, internally coated with a beautiful Quartz groupe; from Oberstein in the Palatinate.

Rem. It appears to me that it cannot be infered with certainty, that the Quartz in this specimen is of later origin than the Calcedony.

4. MINERALOGICAL DECEPTION.

- 26 Amethyst so artificially set into a piece of the root of a tree, that, on the one side it seems very firm and proper, and it is only on the other that the hand of the artist is discoverable.

END OF THE GEOLOGICAL COLLECTION.

IV
GEOGRAPHICAL COLLECTION

IV.

GEOGRAPHICAL COLLECTION.

S.

IV.
GEOGRAPHICAL COLLECTION

2

GEOGRAPHICAL

IV.

GEOGRAPHICAL COLLECTION.

S.

I. THE AMERICAN HEMISPHERE.

A. *The West Indies.*

- 1 Massive Galena with a little disseminated white Lead Ore in Quartz; from Jamaica.

B. *South America.*

- 2 Platina in grains; from Peru.

C. *North America.*

- 3 Graphite or Plumbago, mixed with some Ironshot indurated Clay, and nearly of a slaty appearance; from the vicinity of Philadelphia.
- 4 A tablet of greenish grey Steatites; from North Carolina.
- 5 A polished Labradore Felspar, reflecting grass green, blue and Pinchbeck brown; from the coast of this name.
- 6 Labradore Felspar reflecting Lazuli blue and silvery white, intersected by a white stripe; from the same place.

II. A S I A.

A. *From the Islands.*

- 7 A large quantity of beautiful Rubies; from Ceylon.
- 8 Hyacinths, partly in grains and partly crystallized; from the same place.
- 9 Two Jargons; from the same place.
- 10 A yellowish grey Cat's-eye, which is polished; from the same place.
- 11 A Ceylonian Moss Agate.

B. *Arabia.*

- 12 A piece of a Carnelian pebble which is polished.
- 13 A polished Heliotropium, of a very dark mountain green colour.
- 14 A somewhat lighter Heliotropium.

C. *Persia.*

- 15 A slab of fine-grained Limestone; from Tauris.

D. *China.*

- 16 A piece of Steatites, carved to represent an Idol.

E. *Russian Asia or Siberia.*

- a. *Nertschinsk*, belonging to the Taurian Mountains, and perhaps a Branch of Caucasus.
- 17 Chrysolite, which presents itself in the branches of the Native Iron; found on the Eastern side of the Jenisei, between the rivulets Ubei and Sisen.
- 18 A mountain green Prismatic Beryll Crystal.
- 19 Part of a sky blue Beryll Crystal,

20 Galena

- 20 Galena mixed with white Lead Ore and much brown Iron Ochre; from the Lurgikan Mine, by the Schikkastrom.
- 21 Indurated Iron Ochre with disseminated white Lead Ore; from the same place.
- 22 Massive Galena; from the Nowoserentin Mine.
- 23 Coarse-grained Galena with disseminated white Lead Ore and much Iron Ochre.
- 24 Compact brown Ironstone, which is mixed with much Quartz; from Bukatuinskaho near Nertschinsk.

b. Kolywan Government.

- 25 Native Silver, partly disseminated, partly Capillary, with finely disseminated Antimoniated Silver Ore in Hornstone; from the Mine Andreas, 20 fathoms deep.
- 26 Coarsely disseminated small and fine-grained Galena in Quartz, which is mixed with some Calcareous Spar; from the Schariwankir Mine, 50 Wersts from Kolywan.
- 27 Coarse and fine-grained Galena, in foliated Barosele-nite, which is mixed very much with Iron Ochre; from the same place.

Rem. This tract belongs to the Altaischan Mountains.

c. Tobolski Government.

- 28 Very Ironshot Micaceous Quartz, which is Auriferous; from the Beresof Gold Mines.

d. Ohrenburg Province, in the Ufi Government.

- 29 Yellowish white Calcareous Sinter; from Ohrenburg.
- 30 Compact brown Iron Stone, with a little overlaying Iron Ochre; from the Kamenskoï Works, on the river Iset.
- 31 Compact brown Iron Stone, which is intermediate between Tubuliform and Cellular; from the same place.
- 32 Amorphous compact brown Iron Stone, with a large quantity

quantity of overlaying Iron Ochre; from the same place.

- 33 A mineral which is intermediate between compact brown, and Argillaceous Iron Stone; from the same place.
- 34 Auriferous cellular compact brown Iron Stone, with very much Iron Ochre; from the same place.

e. Permian Government.

α. Catharinenburg Province.

- 35 Partly Massive, partly crystallized compact brown Iron Stone, mixed with much Quartz; from the Beresof Mines, 15 Wersts from Catharinenburg.
- 36 The same, with intermixed Manganese and overlaying decayed Martial Pyrites; from the same place.
- 37 Cellular compact brown Iron Stone, upon Massive ditto; from the same place.
- 38 Compact brown Iron Stone, crystallized in perfect cubes of middling size penetrating one another; from the same place.
- 39 Brown Iron Stone crystallized in small similar cubes, with much adhering small-grained Talc.
- 40 Compact brown Iron Stone, mixed with much Quartz, beside the before mentioned Talc.
- 41 Massive brown Hæmatites mixed with crystallized compact brown Iron Stone, Quartz and fine-grained Talc.

Rem. All these specimens are Auriferous, and are employed on that account.

- 42 Massive Martial Pyrites in Quartz, mixed with compact brown Iron Stone, which in some places has a cubic form.
- 43 Similar Martial Pyrites in Quartz, which is merely coated externally with compact brown Iron Stone.
- 44 Very small cubic crystallized common Martial Pyrites, in Ironshot Quartz.
- 45 The same crystallized in small perfect cubes, mixed with compact brown Iron Stone and Quartz.

46 Cellular

- 46 Cellular Hepatic Pyrites, with common Martial Pyrites in Ironshot Quartz.
- 47 Small cellular, similar Hepatic Pyrites, in the same compound.
- 48 Cellular Quartz with Massive ditto, which is mixed with compact brown Iron Stone.

β. From the Kungur Circle.

- 49 Petrified Wood, which is very drusy.

γ. Werbakur District, 50 Wersts from Catharinenburg.

- 50 Massive compact Malachite, which passes into the delicately fibrous; from the Gumaschinsk Mine.
- 51 Somewhat drusy Malachite, mixed with much Iron Ochre; from the same place.
- 52 Cellular Malachite under the same circumstances; from the same place.

δ. From the high chain of the Uralian Mountains of this District.

- 53 Compact red Copper Ore mixed with fine foliated ditto, and with overlaying fibrous Malachite; from the Mine Frolova, as also the following specimens to No. 60.
- 54 Massive compact grey vitreous Copper Ore with some compact Malachite.
- 55 The same, with extremely fine disseminated Copper Pyrites.
- 56 The same, with minutely disseminated Copper Pyrites, and coated with much Iron Ochre.
- 57 Coarsely disseminated Copper Pyrites, in Ironshot vitreous Copper Ore, which is coated with much compact Malachite.
- 58 Coarsely disseminated, very delicately fibrous Malachite, in Ironshot compact grey vitreous Copper Ore.
- 59 Disseminated and thickly overlaying compact Malachite,

chite, upon a somewhat Ironshot indurated Clay, which is perhaps a decomposed Rockstone.

- 60 The same, with much minutely disseminated vitreous Copper Ore, and finely disseminated Copper Pyrites in the same compound.

Rem. The vitreous Copper Ore is there called Fahlerz.

- 61 The same, with still more Iron Ochre, and in some places also mixed with Quartz; from the Wasiliebskoi Mine.

c. From the Western Marigenous Mountains of the Urals.

- 62 Greenish grey Sandstone, with some adhering petrified wood; from the Ingowski Mine in Permia.

- 63 The same, intimately mixed with very much compact Malachite; from the same place.

- 64 Similar fine-grained Sandstone, with overlaying blue Copper Ore.

- 65 The same, with very much blue Copper Ore, and some Ironshot Mountain Green.

Rem. It is found in this manner penetrating large trunks of trees,

- 66 The same sort of Stone with extremely delicately crystallized blue Copper Ore, in other respects as the foregoing; from the same place.

- 67 The same, with very much Malachite penetrating the Sandstone in Zone-like stripes; from the same place,

III. EUROPE.

I. RUSSIAN DIVISION,

a. Government of Moscow.

- 68 Red Argillaceous Iron Stone mixed with a little brown; from the Occa.

69 Somewhat

- 69 Somewhat lighter Argillaceous Iron Stone invested with Iron Ochre; from the same place.

b. Novogorod.

- 70 Bituminous Wood approaching very nearly to Stone Coal; from the Walda Mountains of the river Mesta, near the town of Brovitsch.

Rem. It is there considered as genuine Stone Coal.

- 71 Massive Martial Pyrites, which is found in the Coal Strata there.

c. Government of Rigau.

- 72 Cubically crystallized Martial Pyrites; from a small Island near Pazal, as are likewise the following specimens to No. 87.
- 73 A Tubiporite in Flint.
- 74 An Escarite penetrated and invested by numerous calcareous particles, in Flint.
- 75 The same, in which small Quartz Crystals have formed.
- 76 A boulder of fine-grained Limestone.
- 77 Astroites in Limestone, whose rays are no longer distinct.
- 78 A similar large piece, with the rays mostly abraded.
- 79 A Fungite in Limestone.
- 80 Another Fungite which is scarcely recognizable from the injuries it has sustained.
- 81 A very large and net-like Escarite.
- 82 An Escarite of a small net-like texture, in which however the original Coral is discoverable.
- 83 A rather small net-like Escarite.
- 84 An Escarite whose cells are Parallelograms.
- 85 A very oblong-cellular, appearing almost pectinated, Escarite, in which the transverse streaks are nearly wanting.
- 86 An indistinct Coral petrification, which however seems to owe its origin to the Madrepor.
- 87 A still more distinct, somewhat undulatingly curved Coralliolite.

d. Ingermanland

d. Ingermanland Government.

- 88 A very beautiful large Labradore pebble reflecting grass green.
- 89 Piliform Argillaceous Iron Ore, approaching very much to the Lowland Argillaceous Iron Ore.

*e. Government of Olonez.**a. a. Belonging to Petrowsawodsk.*

- 90 Massive Copper Pyrites, with some blue Copper Ore, Malachite and Baroselenite; from the Alexander Mine, 28 Wersts from Petrowsawodsk.
- 91 Massive Wolfram, upon a compound of Ironshot Quartz, some Calcareous Spar and a little Malachite; from the same place.
- 92 Trap, intersected by a slip of fibrous Hornblende, with Calcareous Spar; from the same place.
- 93 A somewhat greener Trap, in which the Felspar is very distinct; from the same place.
- 94 A piece of Trap, in which beside the intimately intermixed Hornblende, also visible black grains of the same present themselves.
- 95 A Trap more inclining to greyish, richer in Felspar, with traversing slips of Calcareous Spar; from the same place.
- 96 A Quartz groupe of prismatic Crystals, mostly of a middling size and acuminate in the usual manner, with Calcareous Spar strewed over the surface, upon a tolerably coarse-grained Trap; from the same place.
- 97 Dark blackish grey Trap, in which the grains of the Felspar are longer, and finely disseminated vitreous Copper Ore occurs; from the same place.
- 98 Large-grained Calcareous Spar, with a little overlaying Brown asbestiform Actynolite, and very Ironshot brown Blende; from the Mine Nadeschwa, 44 Wersts from Petrowsawodsk.
- 99 Birch Wood, which is completely changed into cellular brown Iron Stone; from the Martial Spring which
Peter

- Peter the Great drank of, 50 Wersts from Petrowsawodsk.
- 100 Small-grained yellowish grey Trap, in which tho' but casually, a good deal of asbestiform Actynolite seems to occur; from the Missalga Mine, 55 Wersts from Petrowsawodsk.
- 101 Very compact Trap, with inlaying magnetic Iron Stone; from the Mine Swiatnawolok on the Lake Pali, (Russian *Pali osero*), 100 Wersts from Petrowsawodsk.
- 102 Fine-grained Trap, wherein the Felspar is distinguishable, with adhering Calcareous Spar; from the same place.
- 103 A slip of yellowish grey Quartz which very nearly approaches to Pitchstone, in Trap; from the same place.
- 104 Massive Copper Pyrites, with some Calcareous Spar, in Quartz; from the Mine Lopskoi on the Segosoro, 250 Wersts from Petrowsawodsk, and 35 from the village Pedansk.
- 105 Coarsely disseminated Galena, in a somewhat Quartz compact brown Iron Stone; from the same place.
- 106 Massive Galena, mixed with Martial Pyrites and Calcareous Spar, and with adhering Argillite; from the Mine Lebeschei at that place.
- 107 Massive Copper Pyrites, with some adhering green Earth, or perhaps Chlorite, in Quartz; from the same place.
- 108 Greenish grey Quartz, with a tolerably light green Trap rich in Felspar; from the same place.
- 109 Dark greenish black Trap, with very much inlaying greyish white very distinct Felspar; from the same place.

b. b. - From the Northern extremity of Lake Onega.

- 110 Superficial and disseminated blue Copper Ore, with Malachite in Quartz; from the Woidsk Gold Mine on the river Wig, 80 Wersts from the White Sea.
- 111 Massive specular Iron Ore in Ironshot Quartz; from the Mine Perbuba.
- 112 Massive Copper Pyrites in Ironshot Quartz; from the same place.
- 113 Coarsely and minutely disseminated Copper Pyrites, with

- with a little compact Malachite, blue Copper Ore and Quartz; from the same place.
- 114 Superficial blue Copper Ore upon Argillite; from the same place.
- 115 Curved fibrous black Hornblende upon Mountain green Trap, wherein the Quartz is very intimately mixed with the Hornblende, and scarcely any Felspar occurring in it.

f. Archangel Government.

- 116 Grey white-streaked coarse grained Limestone; from the vicinity of the White Sea.

2. *NORWAY.*

a. The Islands.

- 117 Yellowish grey Asbestos which seems to graduate into indurated Talc; from Grönland.
- 118 A compound of red Quartz with an infinity of white spots of this sort of Stone, which is there improperly called Porphyry, but is equally useful on account of its beauty; from the same place.
- 119 A Rhomboidal, quite transparent, duplicating Calcareous Spar fragment; from Iceland.

b. Norway itself.

a. a. Bisboprick of Drontheim.

- 120 Massive Copper Pyrites in an Argillaceous Matrix; from the Mine Meldals-Werk.
- 121 Massive Copper Pyrites with a little Martial Pyrites and much Quartz, also with adhering, soft, curved flaty Argillite on both sides.
- 122 Massive Copper Pyrites, with much brown Blende and some Quartz on both sides, with walls of the foregoing Rockstone; from Roeraas.

123 Somewhat

- 123 Somewhat variegatedly tarnished Copper Pyrites, with crystallized Martial Pyrites in Quartz, as also some Magnetic Iron Ore, with the foregoing Rockstone adhering; from the same place.

b. b. Bisboprick of Cbristiansand.

- 124 Small-grained Massive Magnetic Iron Ore, mixed with much granular Limestone; from Ahrendal.
- 125 Massive, quite compact Magnetic Iron Ore, with a little disseminated Copper Pyrites and much Hornstone, also a little Mica, brown Garnet and Calcareous Spar; from the same place.
- 126 Coarsely disseminated Magnetic Iron Stone, in a somewhat Argilliferous granular Limestone; from the same place.
- 127 Massive Copper Pyrites, in a compound of Hornblende and some Actynolite; from the same place.
- 128 Massive and Coarsely disseminated Galena, upon greyish black Argillite, which is mixed with brown Blende and intersected by a slip of Siderocalcite; from the same place.
- 129 A compound of very much blackish green Hornblende and Calcareous Spar; from the same place.
- 130 Moderately solid, somewhat Quartzzy, thin slaty Hornblende Slate, with an adhering slip of Calcareous Spar, which is mixed with much olive green Actynolite, and strewed with very small cubes of Martial Pyrites.

b. b. Bisboprick of Chriftiania.

- 131 Massive brown Blende with much Calcareous Spar, in greenish Indurated Clay which seems to be a decomposed Gneifs; from Kongsberg.
- 132 Cobaltic Incrustation upon Calcareous Spar, with adhering greyish black Argillite; from the same place.
- 133 Coarsely disseminated white Cobalt Ore in Quartz, which is mixed with some Calcareous Spar; from the same place.
- 134 Coarsely disseminated purple Copper Ore, with some grey

grey vitreous Copper Ore in Quartz; from Omdaa-
len.

- 135 Purple Copper Ore in Quartz, which is traversed
with much compact Malachite, and mixed with some
Mica; from the same place.
- 136 Massive fine-grained Copper Pyrites; from Folldaa-
len.

*d. d. Without a particular determination of the part of the Continent of Norway
from which they come.*

- 137 Brownish red and greenish grey veined Serpentine.
- 138 The same, intersected by two broad slips of fine
grained Limestone.
- 139 Yellowish grey compact Limestone.
- 140 Smoke grey, greyish white streaked, fine grained
Limestone.
- 141 Pale smoke grey, greyish white shaded, tolerably large-
grained Limestone.
- 142 Smoke grey, yellowish and greyish white, brownish
red and green spotted and streaked granular Lime-
stone.
- 143 Dark greenish grey Hornblende Slate, which passes
into Argillite.
- 144 Small-grained Talc, with inlaying Garnets.

3. SWEDEN.

A. West Gothland.

- 145 Blackish green Trap, in which Hornblende and Quartz
are very distinguishable by their fracture and colour,
with very little and scarcely discernible Felspar; from
Kinnekulle.
Cronstedt, §. 267. a. Wallerius, Sp. 210.

B. The Parish of Alsseda in Oeland, in the Gothland District.

- 146 Massive Auriferous Martial Pyrites in Quartz, with
adhering Argillite; from Aedelfors.

147 Massive

- 147 Massive Magnetic Iron Ore, with some Quartz; from the same place.
- 148 Indurated dark yellowish grey Talc, which is very compact and solid, and would be remarkably useful for all kind of utensils, upon the one side quite thinly overlaid with Quartz and Siliceous Schistus; from the same place.

C. *Westmanland.*

- 149 Massive, coarse and small-grained Galena in Steatites; from Salberg.
- 150 Small-grained Magnetic Iron Ore, which is mixed with some Quartz; from the same place.
- 151 Massive specular Iron Ore in Quartz; from Norberg.
- 152 Wolfram which is mixed with some Mica; from the same place.

D. *Upland.*

- 153 Quite compact, specular Magnetic Iron Ore which is mixed with some Asbestus; from Dannemora.
- 154 Small grained Magnetic Iron Ore which is mixed with reddish brown Quartz; from the same place.

Rem. This Quartz is there erroneously taken for Jasper.

E. *The province of Stora and the Copperberg in Dalecarlia.*

- 155 Massive, slightly glittering Copper Pyrites; from Fahlun.
- 156 Variegatedly tarnished glittering Copper Pyrites, with Quartz; from the same place.
- 157 Specular Iron Ore, in some places fine-grained and tarnished with the colour of tempered Steel, mixed with Magnetic Iron Ore and some Quartz; from the Mountain Gränge.

Rem. It is there usually called *Minera Pleiadum*, and affords a cold short Iron,

158 Massive,

- 158 Massive, very beautiful brassy yellow Copper Pyrites, with some intermixed Brown Blende in Calcareous Spar; from Tunaberg.
 159 Massive Copper Pyrites mixed with some indurated Clay; from Selstadt.
 160 Magnetic Iron Ore; from Taberg.

F. Lapland.

- 161 Fine-grained Magnetic Iron Ore, in Quartz; from Jelliware.

4. PRUSSIA.

- 162 Wax yellow Amber.
 163 Honey yellow Amber with an insect inclosed in it.
 164 Dark Hyacinth red Amber.

Rem. All three specimens are from the Strand of the Baltic,

5. POLAND.

A. Lithuania.

a. Indiscriminately and almost in general.

- 165 Yellowish brown, on one side black bordered Petrified Wood.
 166 Dark yellowish grey ditto.
 167 Greyish black and honey yellow striped Petrified Wood.
 168 Greyish black and yellowish brown striped Petrified Wood.
 169 Isabella yellow and black striped Fossil Wood,
 170 Dark greyish white Flint.
 171 Pale yellowish grey Flint.
 172 Pale smoke grey Flint.

Rem. These three varieties approach very nearly to Hornstone,

- 173 Flint of an intermediate colour between smoke grey and Wax yellow.
 174 From the wax yellow somewhat inclining to grey, Flint.
 175 Greenish

- 175 Greenish grey Flint.
- 176 Flint of an intermediate colour between wine and wax yellow.
- 177 Somewhat darker similar Flint.
- 178 Similarly coloured, in some places yellowish brown spotted Flint.
- 179 Flint, honey yellow at the edges.
- 180 A little darker honey yellow Flint, which is wine yellow in the centre.
- 181 Similar, here and there Ochre yellow spotted, Flint.

Rem. These specimens (No. 173—181) come extremely near to Calcedony.

- 182 From the honey yellow passing into smoke grey, Flint.
- 183 Yellowish brown Flint, which is somewhat blackish in the clefts.
- 184 Somewhat darker yellowish brown, here and there reddish spotted, Flint.
- 185 Similar, still darker, partly grey spotted, partly sprinkled with much red, Flint.
- 186 A Flint, which from the reddish brown, somewhat inclines to crimson red.
- 187 The same of a somewhat higher colour.
- 188 Reddish brown and black spotted Flint.
- 189 Dark reddish brown, leek green and black spotted Flint.
- 190 Cochineal red Flint.
- 191 Brownish black Flint.
- 192 Moderately dark black ditto.
- 193 From the dark black falling into blackish grey, Flint.
- 194 Very dark smoke grey ditto.
- 195 Somewhat lighter smoke grey ditto.
- 196 The same still lighter, with yellowish brown edges.
- 197 From the smoke grey passing into yellowish grey, but at the borders bright yellowish and bluish grey fortification-wise annulated, Flint.
- 198 A very conical sea apple petrified in Flint.
- 199 A similar, somewhat lower in proportion to the breadth, ditto.
- 200 An Echinospatagite somewhat injured on one side.
- 201 a A still more injured and not perfectly distinct, probably petrified Schield Urchin.

271 b Distinct

- 201^b Distinct Echinite spines in Flint.
- 201^c The same, very abundant, but decayed, therefore no longer perfectly distinguishable.
- 202 Flint with impressions of Trigonelles in which all the three sides are still visible, though but faintly so, since they are but small.
- 203 Flint with a somewhat indistinct impression of a small Mytilite.
- 204 A Flint petrification, also indeed indistinct, however it seems to be that of a Chamite.
- 205 A petrification in Flint, which is most probably a streaked Chamite.
- 206 The impression of a similar petrification in Flint.
- 207 The impression of a Pectunculate in Flint.
- 208 Indistinct, small, petrified shells in Flint.
- 209 Small Astroit petrifications in Flint, of a size decreasing from that of a small pea, to the size of a grain of sand, occurring partly sparingly, partly abundantly united together, but without the projecting rays, thence not recognizable without the following,
- 210 Similar Astroit petrifications in which the projections, (indeed in some places a little of the stellular appearance itself, are still to be discovered, of different sizes, viz. of the size of a small pea to that of a grain of Millet.
- 211 Escharite petrifications in Flint.
- 212 Probably similar coral petrifications in Flint, in which however they are not quite indubitable, since one may also observe the before mentioned Astroites, but the whole from the great quantity of the petrifications on the surface appears as if perforated by the Pholas.
- 213 Flint which is mixed with a little Calcedony.
- 214 A Flint mixed with much minute Botryoidal Calcedony of a yellowish brown colour.
- 215 Flint mixed with greenish grey Calcedony.
- 216 Flint mixed with a greyish white Quartz.
- 217 The same mixed with Quartz and Calcedony at the same time.
- 218 A Flint mixed with a groupe of minute pyramidal Quartz Crystals.
- 219 The same with very small drusically accumulated Quartz Pyramids.

- 220 Flint mixed with a little Calcareous Spar.
- 221 The same with a tolerable quantity of small grained Calcareous Spar, and besides mixed with a little Calcedony.
- 222 Flint mixed with much Calcareous Spar.
- 223 Flint united with a large quantity of Calcareous Spar, which predominates in the compound.
- 224 A Flint mixed with small drusy Quartz, a little Calcareous Spar and much Hornstone.
- 225 A blackish grey Flint, with overlaying white Hornstone appearing like Lime, but effervescing not at all with acids.
- 226 The same, in which the Hornstone traverses it in slips.
- 227 The same compound, but the Hornstone is of a greyish white colour.
- 228 The same with still darker Hornstone, but which must be much more calcareous, since it effervesces pretty strongly.
- 229 Genuine grey compact Limestone mixed with a little black Flint.

Rem. One part of the foregoing Limestone has an imperfect conchoidal, the other a coarse-grained uneven fracture.

- 230 Bluish black Flint mixed with very much almost thick Lamellar fine splintery yellowish grey Hornstone, which is quite firm in it, and does not effervesce in the least.
- 231 Small Calcareous Belemnites.

b. Near the Porphyry Mountains.

- 232 Greyish white moderately soft Limestone.
- 233 Yellowish grey ditto, in some places mixed with Marle.
- 234 An Echinite in which the rind is calcareous, but the interior, Flint.
- 235 Greyish white Quartz with some adhering Calcedony which is mixed with green Earth.
- 236 A reddish brown Amygdaloid, with elliptical, inlaying globules,

globules, mostly of wine yellow Calcareous Spar, but here and there also with Crysolite.

Rem. This it is said to lay above the Porphyritic Rock—but the alledged Porphyry itself is nothing but a mere Amygdaloid.

- 237 Greyish black flaty Clay which lays under the Porphyry and over Stone Coal.
- 238 Reddish brown Hornstone.
- 239 Blackish grey Hornstone which from the intimately intermixed argillaceous particles, seems to graduate into Argillite.

Rem. These two last varieties of Hornstone constitute the continuation of the Porphyry Mountains.

B. Podolia.

- 240 Bright white, reddish white streaked Fossil Wood.
- 241 Massive Galena with overlaying Brown Blende; from Chenniix in the Waiwodeship of Sandomir.
- 242 Coarsely disseminated Galena in Calamine; from Olkutsch in the Waiwodeship of Cracow.
- 243 Minutely disseminated Galena in very Ironshot Calamine; from the same place.
- 244 Yellowish grey fine-grained Massive Calamine; from the same place.
- 245 Minute Botryoidal and cellular Calamine; from the same place.
- 246 Impure, partly as it appears somewhat sandy, partly Ironshot, Calamine; from the same place.
- 247 Coarsely disseminated native sulphur in greyish white compact Limestone.
- 248 The same minutely disseminated, here and there with small Calcareous Spar groupings, in the same sort of stone.
- 249 Common Salt efflorescing upon the foregoing Limestone.

6. GALLICIA AND LODOMIRIA.

- 250 Compact Gypsum mixed with indurated Clay, from Wieliczka

Wielizca in the Bochenska circle, as are all the specimens to No. 260.

- 251 Fibrous Gypsum with adhering indurated Clay.
- 252 Massive foliated Gypsum with the same compound.
- 253 Yellowish grey Calcedony which is said to be found there minutely botryoidal, in Gypsum.

Rem. These four substances lay there above the proper strata which follow here.

- 254 Greyish white, somewhat drusy, foliated Gypsum.
- 255 A Rhomboidal Crystal of broad foliated Gypsum, of middling size.
- 256 Ditto, crystallized in small Prisms, penetrating each other.
- 257 Wine yellow Calcareous Spar consisting of columnar distinct concretions.
- 258 Reddish brown Hornstone which is intersected by very numerous slips of Calcareous Spar.
- 259 A compact Gypsum somewhat adulterated with Clay, which, as it is not completely saturated with Vitriolic Acid, seems somewhat marlaceous and is there called Halda.
- 260 Bright and yellowish white foliated Rock Salt.
- 261 Compact brown Ironstone in small globular pebbles.
- 262 Black Manganefian Ore.

7. HUNGARY.

A. *The Carpathian Mountains.*

- 263 Crystallized Gypsum with some Iron Ochre, upon greenish grey Fossil Wood, which is not very much altered.

B *Schmolniz in the Kaschau district.*

- 264 Crystallized Brown Blende, with Martial Pyrites, upon a Quartz groupe, upon which Calcareous Spar in capillary Crystals occur.

C. *Kremniz in the Barcher County. (Lower Hungary.)*

- 265 Diffeminated Gold Ore, with some vitreous Silver Ore and Martial Pyrites in Quartz.
- 266 Massive and crystallized Auriferous Copper Pyrites, with some sparry Iron Ore, in a Porphyry which consists of a compact grey petrosiliceous basis, with finely but abundantly diffeminated particles of Felspar.
- 267 Superficial compact Malachite upon Quartz.

D. *Herrngrund in the upper district of the Neusohl County.*

- 268 Massive grey Copper Ore in Quartz.

Rem. It is there called Weisgultig Ore.

- 269 Massive grey Copper Ore with diffeminated Copper Pyrites in Quartz.

E. *Holter County.*a. *Schemniz.*

- 270 Cellular Ironshot Quartz which is said to contain much Silver; from the Joseph in the Hodritsch.
- 271 Capillary crystallized Calcareous Spar with minute sparry Iron Ore Crystals, upon Ironshot Quartz; from the three King's Gallery.
- 272 Finely diffeminated Auriferous Copper Pyrites with argentiferous Galena, in Massive red Manganesian Ore which is mixed with Quartz; from the Theresia Shaft.
- 273 Sparry Iron Ore crystallized in acute, hollow Pyramids, upon Quartz, in which Galena, Brown Blende and Copper Pyrites are diffeminated; from the same place.
- 274 Sparry Iron Ore crystallized in minute Rhombs, upon a Quartz groupe; from the same place.
- 275 Calcareous Spar crystallized in very small, perfect cubes globularly accumulated, upon Quartz wherein much Brown Blende and some Copper Pyrites are diffeminated,

- disseminated, with adhering greenish somewhat decomposed Rockstone, which is probably Porphyry; from the same place.
- 276 Calcareous Spar crystallized in elongated Pyramids, mostly scopiformly aggregated, in a complete groupe, upon a compound of smoke grey Quartz with some Massive Calcareous Spar; from the same place.
- 277 Massive Copper Pyrites in Galena, upon Quartz wherein grey Copper Ore is disseminated, and which is also coated with Quartz Crystals; from the Pocher Gallery.
- 278 Massive Galena, mixed with some Brown Blende, and much Jasper (Sinople) and with disseminated Copper Pyrites in Quartz; from the same place.
- 279 Coarsely disseminated Galena with Brown Blende in a compound of Jasper and drusy Quartz, wherein a little Copper Pyrites is disseminated; from the same place.
- 280 Crystallized sparry Iron Ore with Calcareous Spar upon Quartz; from the same place.
- 281 Minute Calcareous Spar Pyramids accumulated in the larger cavities, but in which it is obvious that they originate from Quartz Pyramids by a secondary crystallization, upon Massive Quartz which is mixed with Brown Blende.
- 282 Calcareous Spar crystallized in very small drusically accumulated Pyramids, upon Calcareous Sinter.
- 283 Cellular Quartz, with very small Crystals of Martial Pyrites strewed over the surface.
- 384 Quartz with cubic impressions mixed with indurated Clay.
- 285 Quartz crystallized in hexhædral Prisms of middling size upon Massive ditto, wherein a little Blende is intermixed with an adhering flaty Rockstone; from the same place.
- 286 A groupe of hexhædral prismatic Quartz Crystals terminated as usual, upon Massive Quartz which is cellular underneath and somewhat Ironshot; from the same place.
- 287 A groupe of prismatic Quartz, acuminate by three alternating much larger planes, supporting a tabular Crystal of Baroselenite; from the same place.

- 288 A Quartz groupe, with much overlaying somewhat decayed Calcareous Spar, upon Massive Quartz wherein some brown Blende and Copper Pyrites are disseminated; from the same place.
- 289 Porphyry which consists of a Quartzzy basis of a reddish white colour, and inlaying greenish Hornstone and red Felspar particles, (*Saxum Metalliferum Bornii*) from the same place.
- 290 A very distinct Porphyry, of a dark grey petrosiliceous basis, with greyish white Felspar and Quartz grains, which are coarsely disseminated therein; from the same place.

Rem. It seems decomposed on one side, and therefore to be the course of the vein.

- 291 Similar Porphyry, with a reddish brown basis, much inlaying, mostly decomposed Felspar, as also some Quartz; from the same place.
- 292 A sort of Rock which constitutes the true transition from the foregoing Porphyry with a very dark basis, into Trap.

Rem. This last is not from the Pocher Gallery, but from the vicinity of it.

b. From the other Counties.

- 293 Schistose Mica with much inlaying Garnets; from Pilzen.
- 294 Two small prismatic, quite transparent, colourless Rock Crystals; from Marmarosa.
- 295 Pearl grey Pitchstone, with disseminated Opal and some decomposed white Felspar; from Mongatsch.

Rem. This specimen forms therefore an extremely rare variety of Porphyry.

- 296 Small globular Calcareous Sinter; from Drachenholm.

F. *The Bannat.*

- 297 Massive vitreous Copper Ore mixed with purple Copper Ore; from Moldawa.
- 298 Crystallized blue Copper Ore, in a compound of Tile Copper Ore with a little compact Malachite; from the same place.
- 299 Massive Copper Pyrites, with much Tile Copper Ore, blue Copper Ore, also brown Iron Ochre and Lamellar Baroselenite; from the same place.

G. *Transylvania.*

- 300 Massive and also crystallized Martial Pyrites; from Abrudbanya.
- 301 Disseminated Nagaya Gold Ore, with much brown Blende in Quartz, with overlaying red Manganefian Ore and adhering decomposed Argillite; from Nagaya.
- 302 Massive Galena with much brown Blende and grey Copper, Ore in a compound of Quartz and red Manganefian Ore; from the same place.
- 303 Massive red Manganefian Ore, with coarsely disseminated Realgar and grey Copper Ore, as also much white ditto intermixed, upon Quartz which contains much intermixed Martial Pyrites; from the same place.
- 304 Cellular Quartz with a Quartz groupe, also much intermixed red Manganefian Ore and a little Martial Pyrites; from Offenbanya.
- 305 Massive Galena, with some black Blende in Quartz; from the Paulus at Kapnic.
- 306 A large piece of coarse-grained brown Blende; from the same place.
- 307 Crystallized brown Blende which in some places passes into the yellow, with crystallized Calcareous Spar, upon a compound of much Quartz and some Martial Pyrites, with an adhering decomposed flaty Rockstone; from the same place.
- 308 Small reniform red Manganefian Ore, upon a compound

pound of Quartz, a little Martial Pyrites and Galena, with an adhering decomposed Argillitic Rockstone; from the same place.

- 309 A very beautiful groupe of Octohædral tabularly crystallized Lamellar Baroselenite, with the extreme planes bevelled.

8. ITALY.

A. *The Islands.*

a. *Sicily.*

- 310 Brownish black slag-like Lava; from Etna.
 311 Exteriorly reddish brown, slightly porous, moderately heavy Lava; from the same place.
 312 Curved and very thick Lamellar, similar Lava; from the same place.

b. *The Lipari Isles.*

- 313 A piece of greyish white, almost silvery white Pumice.

c. *Elba.*

- 314 A very beautiful groupe of pyramidally crystallized specular Iron Ore, upon Massive ditto which is mixed with some Quartz.
 315 Sparry Iron Ore which is mixed with a very large quantity of Iron Ochre.
 316 Common Martial Pyrites crystallized in small Dodecahedrons, confusedly united.
 317 A boulder of fine-grained specular Iron Ore, in Quartz which is mixed with greenish indurated Clay.

B. *The*

B. *The Continent.**a. Naples.**a. a. Vesuvius.**a. Independantly considered.*

a. a. Fossils merely ejected, whose origin is by no means to be attributed to the Volcano.

- 318 Greenish grey, slightly inclining to silvery white, Mica.
- 319 Brown crystallized Garnet, with some Mica and Quartz.
- 320 A small groupe of Garnets which in some parts approach to the Hyacinth red colour, upon a compound of small grained Limestone and Mica.
- 321 Opal, which occurs partly in blunt, partly in sharp cornered pieces, in an entirely decomposed grey Basalt.
- 322 Somewhat decayed brownish Basalt, with an extraordinary large quantity of inlaying Opal and decomposed Zeolite.
- 323 Reddish brown, somewhat decomposed Basalt, with very much inlaying crystallized Calcareous Spar, whereof the Crystals in some places are small and very distinct hexhædral prisms with the usual acumination.
- 324 Fine-grained somewhat drusy Gypsum.

β. β. Genuine Volcanic Productions.

- 325 Blackish brown very rough Lava.

Rem. This constitutes the uppermost layer of the Mountain according to the observations of Ferber.

- 326 From the black, inclining a little to bluish, vitreous Lava.

3 Q

327 Slaggy

- 327 Slaggy Lava, very strongly inclining to Lazuli blue, and tarnished greenish in the clefts.

β. Monte Somma.

- 328 Blackish grey Lava, with inlaying Crystals of white Garnet.
- 329 Very numerous small roundish Calcareous Spar grains, in a reddish brown basis.
- 330 Grey Lava, with numerous inlaying Hornblende, and mutilated white (probably) Garnet Crystals.
- 331 A compound of greenish grey indurated Clay, with very numerous inlaying Hornblende Crystals, as also with a white sort of Stone which greatly resembles the Saxon Schorlite. (See the Systematic Collection from No. 198—200.)
- 332 A porous reddish brown Fossil, from which it is incontrovertible that Globules of Opal and probably Calcareous Spar grains have fallen out.
- 333 Brownish red, porous, and also dull Lava.
- 334 A very full of blebs and cellular, dark Mortdorè red Lava, which is often described as Pumice.
- 335 Reddish brown porous Lava, whose blebs are all spherical, and probably were formerly filled with another Fossil.
- 336 Smoke grey, tolerably compact Lava.

Rem. In those specimens from Monte Somma, they are certainly not all genuine Lavas which are included, on which account I have bestowed so much attention in their description.

γ. Solfatara.

- 337 Volcanic sulphur in cellular Lava.
- 338 Very much decomposed decayed reddish brown Lava, with whitish Argillaceous spots.
- 339 Somewhat heavier, similar porous Lava, but less decomposed.

b. The Southern part of the Papal territories.

- 340 Yellowish grey Sandstone with inlaying Turbinites; from the vicinity of Rome.

Ferber, a. a. O. S. 232, Sandy Marle.

- 341 A Mitilite in the same Fossil; from the same place.

c. Tuscany.

- 342 Rather impure foliated Talc, which approaches to Potstone; from Sienna.

- 343 Greyish white Steatites; from Impugnetta in the Florentine Government.

Ferber, S. 333.

- 344 A boulder of a Rockstone, which on account of the very large quantity of Felspar, holds an intermediate rank between Porphyry and Granite, but approaching nearer to the former; from the Gabbro Mountain.

Ferber, S. 334.

- 345 Greyish white Calcareous Spar; from the Florentine Appenines.

Ferber, S. 338.

- 346 A very beautiful slab of Florentine Ruin Marble.

d. The Dutchy of Massa.

- 347 White fine-grained Limestone; from Carrara.

- 348 A little more inclining to greyish, micaceous fine-grained Limestone; from the same place.

- 349 Extremely fine-grained bright white, very slightly purple red shaded Limestone, which furnishes an exquisite Marble; from Saravezza.

Ferber, S. 360.

e. Bolognian Government in the Papal territories.

- 350 Smoke grey Bolognian Stone.

3 Q²

f. Venetian

*f. Venetian territories.**a. a. Padua.*

- 351 Grey Basalt with abundant inlaying Hornblende; from the Euganean Mountains.
- 352 Compact black Basalt; from the same place.
- 353 Basalt with disseminated Chrysolite, but which is also very compact; from the same place.

b. b. Aggorth in the Government of Belluno.

- 354 Massive Copper Pyrites with disseminated brown Blende; from the vein of Copper Pyrites at that place.
- 355 Variegatedly tarnished Copper Pyrites mixed with some Quartz; from the same place.
- 356 Massive Copper Pyrites upon Ironshot Quartz; from the same place.
- 357 Massive Copper Pyrites in Siderocalcite; from the same place.
- 358 Massive and coarsely disseminated Copper Pyrites, with some Martial Pyrites in Siderocalcite; from the same place.
- 359 A compound of Copper Pyrites, brown Blende and Sparry Iron Ore; from the same place.
- 360 A compound of Quartz, with much Tile Copper Ore, Copper Pyrites and some superficial compact Malachite; from the same place.
- 361 Fine-grained Martial Pyrites; from the neighbourhood of Zoldon.

c. c. Treviso.

- 362 Superficial blue Copper Ore and compact Malachite upon Lamellar Baroselenite.
- 363 Massive Galena in the same Fossil.
- 364 Massive and coarsely disseminated Galena in Ironshot Quartz which is mixed with Siderocalcite.

d. d. Ischia

d. d. Ischio near Vicenza.

- 365 Coarse-grained Massive Galena, with a little intermixed brown Blende; from Montenaro.
- 366 Small-grained Galena mixed with a little Martial Pyrites and Quartz.
- 367 Fine-grained Galena mixed with some Calcareous Spar and Quartz.
- 368 Extremely fine-grained Galena with a little Copper Pyrites and adhering Ironshot Quartz.
- 369 Flower-like foliated, almost striated Galena, with a little intermixed compact Galena.
- 370 Curved foliated Galena, with very little disseminated Copper Pyrites and adhering Quartz.
- 371 Galena with overlaying grey earthy Lead Ore.
- 372 Galena which is mixed with much Copper Pyrites.
- 373 Green Actynolite which in some places is greenish white, in others greenish grey, with disseminated Galena and very little Blende.
- 374 Green Actynolite of a greenish white colour, mixed with Quartz, and in some parts coated with much Manganese.
- 375 Massive striated grey Manganesian Ore, with overlaying black ditto.
- 376 Coarse and small-grained, in some places Ironshot Calcareous Spar.
- 377 A compound of greenish grey and greyish white Calcareous Spar with blackish green Serpentine and carnation red fine-grained Gypsum; from the vicinity of Verona.

Rem. It is there employed as Marble.

e. e. Bergamo in Bergamasio.

- 378 Massive grey Copper Ore in Sparry Iron Ore.

g. Genoese

g. *Genoese Government.*

- 379 A beautiful brownish red, grey and white spotted and veined Marble; from Sestri on the Genoese coast.

Rem. This is called by the Italians Marmo Fiorito.

- 380 Yellowish white, purple red spotted Marble; from the same place.
381 Greyish Lumacella; from Gassino near Turin.

h. *Savoy.*

- 382 A piece of a large Rock Crystal Prism, with a little overlaying green Earth.

9. *SWITZERLAND.*

- 383 A very beautiful, perfectly transparent, colourless Rock Crystal, internally reflecting Iridescent colours, the Prism is four inches long and exceeds two inches in diameter.
384 Yellowish grey, white veined, fine-grained Limestone; from the Marble quarries between Aigle and Rosch, in the Canton of Berne.
385 Ochre yellow Marle, which is very solid, with numerous inlaying small Turbinites; from the same place.

10. *GREAT BRITAIN.*A. *Scotland.*

- 386 A piece of Plumbago with Ironshot spots here and there; from Dumfries.
387 Acicularly crystallized, columnarly accumulated white Lead Ore; from the Lead Hills.

388 Red

- 388 Red micaceous Iron Ore upon compact red Iron stone; from Carron.

Rem. In strict propriety the Islands together with Ireland, but of which nothing is come to hand, should precede Scotland.

B. *England.*

a. *Yorkshire.*

- 389 Yellowish grey Marle with Mitilites.

b. *Lancashire.*

- 390 Compact red Ironstone with a little micaceous Iron Ore and drusy Quartz.
 391 Brown Jasper which graduates into Hornstone.
 392 Lavender blue, brown spotted Lithomarga; from the same place.

Rem. It extremely resembles the Terra Miraculosa Saxoniz.

c. *Derbyshire.*

- 393 Crystallized Tinstone in a groupe; from the Odin Mine.

Ferbers Oryktogr. S. 48.

- 394 Crystallized Brown Blende upon a Fluor Spar groupe, on which Calcareous Spar occurs underneath.
 395 Cockscomb crystallized Martial Pyrites upon a compound of Galena and Fluor Spar.
 396 Massive purple Copper Ore in Calcareous Spar.
 397 Grey compact Limestone with numerous Entrochites and Trochites; from Moneyash.
 398 Grey compact Limestone, with very numerous small petrifications and an adhering compound of drusy Fluor Spar, overlaying crystallized Galena and Calcareous Spar.
 399 Yellowish grey somewhat sandy Marle.
 400 Striated grey Manganesian Ore.
 401 Bituminous Wood.

d. *Flintshire.*

d. Flintshire.

- 402 A very beautiful Pitchcoal which comes extremely near to Jet.
 403 Variegatedly tarnished flaty Coal.

e. Cornwall.

- 404 Variegatedly tarnished, in some places botryoidal Copper Pyrites.
 405 Variegatedly tarnished Copper Pyrites, with some Quartz and a few minute Crystals of the same.
 406 Copper Pyrites crystallized in perfect trihædral pyramids of middling size, in prismatic crystallized Quartz.
 407 Superficial, in some places also disseminated Mountain Green, in indurated Clay which is mixed with much Calcareous Spar.
 408 Massive Galena with overlaying crystallized white Lead Ore.
 409 Vitreous Copper Ore with very small Tin Ore Crystals and Martial Pyrites.
 410 Small, quite coherent grains of Tinstone with fragments of Quartz and Argillite.
 411 Reniform Calcareous Sinter of a wine yellow colour.
 412 Yellowish white Calcareous Sinter with an overlaying Calcareous Spar groupe.
 413 Pyramidally crystallized Calcareous Spar, on the whole aggregated in branches.

f. Some whose places are undetermined.

- 414 Magnetic Specular Iron Ore in small grains.
 415 Reddish brown Argillite, with intermixed greenish ditto.
 416 Pale Ochre yellow, very light Tripoli.
 417 Hornstone, which in some parts is quite decomposed to Clay and from thence has acquired an earthy fracture.
 418 A very fine somewhat talcose Steatites.

419 Grey

- 419 Grey compact Limestone with numerous inlaying petrifications, particularly Ammonites.
 420 Two Spheroids of compact grey Limestone.
 421 Dark smoke and blackish grey Flint, with a still inlaying Echinite.

Rem. Except several detached descriptions of Ferbers, Hamiltons, Burmans and some other Englishmen, very little valuable information has yet appeared on the Oryctography of Britain.

II. FRANCE.

- 422 Rhomboidally crystallized Thumerstone; from Allemont in Dauphine.
 423 A petrified striated Terebratulite; from Champagnè.
 424 Very numerous small cohering Porpites; from Lorraine.
 425 Sparry Iron Ore, which is mixed with very much Iron Ochre and variegatedly tarnished brown Hæmatites; from the County of Foix in the Pyrenees.

12. SPAIN.

- 426 A piece of Plumbago.
 427 Very beautiful black Chalk, which is said to have been found there in a lead mine.
 428 Brownish red, very regularly crystallized Quartz; from Compostella.
 429 A similar Quartz Crystal, but of middling size, and clove brown; from the same place.

13. PORTUGAL.

- 430 Ochre yellow Amianthus.

14. GERMANY.

A. The Schwartzwald Mountains.

a. From Fürstenberg.

- 431 Coarsely disseminated Native Silver with Arsenical Silver, in Calcareous Spar; from Wittichen in Fürstenberg.

3 R

432 Specular

- 432 Specular white Cobalt Ore, upon Quartz Argillite, traversed by a slip of Siderocalcite; from the Sophia, at that place.
- 433 Minutely, but richly disseminated white Cobalt Ore, with some Siderocalcite; from the same place.
- 434 Lamellar Baroselenite, with superficial Cobaltic incrustation and a little black earthy Cobalt Ore; from the same place.
- 435 Pyramidally crystallized Copper Pyrites with some Galena, Martial Pyrites and drusy Quartz.

Rem. This presents itself in the same vein with the Native Silver.

b. Baden Durlach.

- 436 A extraordinarily beautiful Isabella yellow compact Limestone with delicate dendritic delineations; from Efringen in Baden Durlach.

c. Pappenheim.

- 437 Yellowish grey compact Limestone with a very fine splintery fracture; from Pappenheim.

d. Würtemberg.

- 438 Brownish, dark carnation red and white spotted, fortificationwise streaked, Marble.

B Austrian, Salzburg, and Bavarian Mountains.

a. Tyrol.

- 439 Hyacinth red Rock Salt mixed with some greenish grey indurated Clay; from Halle in Tyrol.
- 440 Small Tourmalines in Micaceous Talc; from the Valley of Ziller in Tyrol.

b. Carinthia.

- 441 Coarsely disseminated Cinnabar in Quartz; from Pattertion in Carinthia.

442 ^a Compact

- 442^a Compact brown Ironstone with some drusy Quartz; from Huttenberg, there.
- 442^b Pure white coralliform Calcareous Sinter, with Rhomboidally crystallized Calcareous Spar upon small grained sparry Iron Ore; from the same place.
- 443 Copper Pyrites with fine grained Limestone in marlaceous compact ditto, wherein shells occur, constituting a Lumacella; from Bleiberg in Carinthia.

c. Idria.

- 444 Greyish black exteriorly strong glistening Argillite; from the Idrian country, between Gratz and Carniola.
- 445 Similar Argillite of a lighter colour, with thickly overlaying Cinnabar; from the same place.
- 446 Greyish black indurated Clay, with thickly overlaying Cinnabar which graduates into Hepatic Mercurial Ore; from the same place.
- 447 Dark yellowish grey Argillite with superficial Cinnabar; from the same place.
- 448 Massive and also superficial Cinnabar, upon Argillite which in the recent fracture is smoke grey and is apparently mixed with some Steatites.
- 449 Blackish grey, fine-grained Sandstone, with the so called Kugelerz; from the same place.
- 450 Extremely fine-grained Sandstone, with traversing slips of Cinnabar, which is mixed with Quartz, and with some adhering Argillite.
- 451 Disseminated, in some places crystallized, bright red Cinnabar in compact Limestone, through which numerous slips of Hornstone traverse.
- 452 Massive Cinnabar, with some Martial Pyrites, and with walls of Argillite on both sides.
- 453 Very finely disseminated Cinnabar in an Ironshot Marle.
- 454 Foliated greenish grey Steatites with a little superficial Cinnabar.

d. Carniola.

- 455 Reddish brown fine-grained Limestone, with adhering indurated Clay of a greenish colour; from Carniola.
- 456 Mountain green, very fine Argillite; from the same place.
- 457 Porphyry with a greenish grey Petrofiliceous basis, with inlaying, small grained carnation red Felspar; from the same place.
- 458 Dark brown Hornstone Porphyry with inlaying reddish and white, small grained Felspar.
- 459 Reddish brown, more argillaceous Porphyry, with principally white, small and fine-grained inlaying Felspar; from the same place.
- 460 Light reddish brown Porphyry, with very much inlaying pale carnation red Felspar and a little Hornblende.
- 461 A very beautiful carnation and brownish red, as also pearl grey inclining to lavender blue, spotted Jasp'-agate.

e. Stiria.

- 462 Magnetic Ironstone in Quartz on which are some vestiges of Mica; from Stiria.
- 463 Coralliform Calcareous Sinter (Eisenbluthe); from Eisenerz in Stiria.
- 464 Auriferous Copper Pyrites, with Galena in Quartz, to which Argillite adheres on both sides; from Salzburg.
- 465 Greenish white Quartz with some Steatites, and on both sides with adhering Argillite; from the same place.
- 466 Reddish and yellowish brown shaded and streaked, compact Limestone, which is employed as Marble; from Salzburg.

C. The

C. *The Fichtel Mountains in Franconia, the Upper Palatinate, and the Upper part of Thuringia extending to the Saal.*

a. *The Upper Palatinate.*

- 467 Yellowish and greyish white small grained Limestone; from Pfaffenhofen.

b. *Bareuth.*

- 468 Yellowish grey, intersected with very delicate black veins, red and white sparingly spotted, Marble; from Scherdlas.
469 Yellowish grey, reddish and greenish spotted and veined compact Limestone; from Hof.
470 Smoke and blackish grey spotted compact Limestone with inlaying Martial Pyrites; from Löhma near Bernstein.
471 Smoke grey and greyish white, as also reddish brown spotted, Breccia-like figured compact Limestone; from Bernstein.

c. *From Mainungen.*

- 472 Blackish grey, solid, fine-grained Sandstone.
473 Very Bituminous Marble, there called Coal ashes.
474 A small-grained, very Porphyroidal Sandstone, which is composed of a Petrosiliceous cement with greenish Argillite and red Felspar grains, and is properly grey Wacke.

Rem. This Stratum is seven fathoms thick.

- 475 Yellowish grey Argillite which is found under the foregoing.
476 Black compact Limestone spotted with argillaceous particles, there called black Horngebürge, or Hornstone.

477 A

- 477 A genuine dark Clove brown Hornstone, which lays from 6 to 10 inches thick uniformly above the Coal Strata.
- 478 A greenish indurated Clay (there called Fuller's earth) which is found mixed with the Hornstone.
- 479 A black moderately soft, and very bituminous Hornstone, with superficial variegatedly tarnished Stone Coal, which also is occasionally found over the Coal at that place.
- 480 Brownish black Slate Coal, which forms a Stratum from an half to two fathoms thick.
- 481 Greenish grey indurated Clay or Loam.
- 482 Yellowish grey Hornstone, here and there somewhat Ironshot, and lays two feet thick.
- 483 Yellowish white indurated Clay, which is employed as Fuller's earth at Coburg.
- 484 A moderately argillaceous Hornstone.
- 485 A slightly impure Slate Coal.
- 486 An impure, exteriorly reddish, internally greyish Marle, there called Sandstone.
- 487 Smoke grey, slightly micaceous Hornstone, which is two feet in thickness, and is here and there penetrated with a sort of Loam.
- 488 Greyish black Marle, there called Horn, and is ten inches thick.
- 489 Greenish grey and white, somewhat greasy, indurated Clay, with a few inlaying cubes of Martial Pyrites, but is called white Loam.
- 490 Brownish black Slate Coal, from one and an half to three fathoms thick.

Rem. This seems better than No. 480.

- 491 Massive Martial Pyrites in an impure Stone Coal.
- 492 White Loam, which seems marlaceous, with fragments of grey Hornstone.
- 493 A decomposed Hornstone which is there called indurated Fuller's earth. This and the foregoing layer are not so regular as the others.
- 494 Light yellowish grey Hornstone which constitutes the laying side of the Stratum, is moderately solid and is also mixed with Siderocalcite.

Rem. It somewhat exceeds three fathoms in thickness.

- 495 A very coarse Sandstone which more resembles a Breccia, as it consists of very numerous elliptical pebbles of greenish grey Hornstone, grains of Felspar and Mica, with a Quartz cement.

Rem. Its thickness is not yet explored.

- 496 Somewhat decayed Hepatic Pyrites with disseminated Stone Coal.
 497 Bituminous Wood which seems to graduate into Jet.
 498 Light yellowish grey somewhat Ironshot compact Limestone.
 499 Yellowish grey inclining to reddish, fine Hornstone, which serves the purpose of a Whetstone very well.
 500 A Fossil large Grinder of an Elephant.
 501 A piece of an Ammonite, in Marle.

d. Schwarzburg.

- 502 Greenish grey Argillite; from Schwarzburg.
 503 Copper Pyrites, which is mixed with very much Magnetic Iron Pyrites, some Galena and also Blende, is also said to be auriferous; from the Golden Valley in Schwarzburg.

e. Henneberg.

- 504 A Rockstone which consists of much Hornblende and Quartz mixed, and is probably only a variety of Trap; from the Ehrenberg beside Ilmenau.

Vide Voigt. Catal. No. 4.

- 505 Coarse-grained Granite; from the same place.

Voigt. Cat. No. 1.

- 506 A very beautiful solid reddish brown Poryhyry, with a Petrosiliceous basis and small-grained disseminated Felspar and also Quartz; from Tragberg near Ilmenau.

Voigt. No. 5.

- 507 Grey Manganefian Ore, with some overlaying black ditto and with adhering Quartz; from the same place, where it forms a vein in Porphyry.

508 Blackish

- 508 Blackish grey Porphyry, with a similar basis to No. 506, and also a similar admixture; from Ascherofen near Ilmenau.

Voigt. No. 6.

- 509 Decomposed Granite; from the Freibach near Ilmenau.

Voigt. No. 3.

- 510 Foliated Gypsum intimately mixed with Limestone; from the Johannes-shaft near Ilmenau.

Voigt. No. 23.

- 511 Grey granularly foliated Gypsum, to which broad foliated ditto adheres, in such a manner that the direction of the Folia of the one, is at right angles with that of the other; from the same place.

- 512 Slate Clay, with impressions of Plants; from Tammerberg beside Ilmenau.

Voigt. No. 41.

- 513 A piece of flaty Coal; from the same place.

Voigt. No. 39.

- 514 Yellowish grey, small-grained Sandstone; from the same place.

Rem. It lays under and over the Coal. Voigt. No. 40.

- 515 A Calcedony Spheroid, wherein Amethyst has crystallized, which is again coated with Calcedony; from Schneekopf, between Stuhl and Ilmenau.

- 516 Yellowish grey compact Limestone, with numerous inlaying Mitilites; from the Suhla district.

- 517 The same, of a paler colour, wherein also very numerous Pectunculites occur; from the same place.

- 518 Somewhat decomposed Porphyry; from the Grauwinkele in the Thuringerwald.

Voigt. No. 7.

f. Dutchy of Eisenach.

- 519 Isabella yellow Calcareous Marble; from the Pit beside Spicher, near Eisenach.

Voigt. No. 36.

520 Very

- 520 Very fine-grained greyish white Gypsum; from the Quarries beside Kuttelsthal.

Voigt. No. 20.

- 521 Bituminous Marlite, with very little disseminated Copper Pyrites; from Kupfersuhl beside Eisenach.

Voigt. No. 18.

- 522 Somewhat Bituminous fine-grained Sandstone; from the same place.

Voigt. No. 17.

- 523 A coarse reddish brown Quartz Breccia, (or the so named Todteliegende; *Semiprotolite*); under the stratum of Argillite, beside Stadtefeld in Eisenach.

- 524 Bituminous Wood; from Kaltennordheim in Eisenach.

Voigt. No. 60.

- 525 Greenish grey, somewhat Ironshot in the clefts, Schistose Mica; from Ringberg near Ruhla.

Voigt. No. 10.

- 526 Greyish black Basalt, with much inlaying Chrysolite; from the Stopfelskuppe in Hutschofe, beside Eisenach.

Voigt. No. 42.

g. *Thuringia, (in a more extensive signification,) with the Circle of the Saal, and the Dutchy of Weimar.*

- 527 Calcareous Tufa, or the so named Beinbruch; from Tennstadt near Langensaltz.

Voigt. No. 57.

- 528 Granite penetrated with Calcareous particles; from Kiphauser.

- 529 Yellowish grey fine splintery Limestone; from Artern, as are also all the following specimens to No. 540.

- 530 The same, of a pale smoke grey colour and extremely fine splintery.

- 531 The same, but more marlaceous, with Muscle petrifications.

- 532 The same, with impressions of Mitilites which had formerly lain therein.

- 533 Ochre yellow, dark red spotted Marle, mixed with a little Gypsum.

- 534 The same, which is visibly penetrated with very numerous Iron particles, therefore also much heavier.
- 535 Curved, but parallel fibrous Bituminous Wood.
- 536 Liver brown earthy Bituminous Wood.
- 537 Hepatic Pyrites, with overlaying particles of Bituminous Wood.
- 538 Amorphous similar Martial Pyrites, wherein here and there there seem to be petrifications but very indistinct.
- 539 Brownish red fine-grained, somewhat Micaceous Sandstone.
- 540 The same, upon yellowish grey Sandstone, upon which again in succession, the former, only mixed with greenish grey Clay, adheres.
- 541 Greyish white broad foliated Gypsum; from Botten-dorf.

Voigt. No. 22.

- 542 Smoke grey, slightly Argilliferous Compact Limestone (called Zechstein); from the same place.

Voigt. No. 19.

- 543 Dark yellowish grey Swinestone; from the same place.

Voigt. No. 27.

- 544 Extremely fine-grained, almost compact streaked Gypsum; from the same place.

Rem. This lays under the former.

- 545 Very large-grained Quartz Breccia, in which among others, an oviform pebble larger than a hen's egg occurs; from the same place.

Voigt. No. 15.

- 546 Reddish brown Porphyry, wherein much Quartz and decomposed Felspar, as also a little Mica occur; from Giebichenstein beside Halle in the Circle of Saal.

- 547 Greenish grey Marlaceous compact Limestone, with inlaying Mitilites, Chamites and Pectunculites; from the same place.

- 548 Reniform Native Argill; from the Garden belonging to the Royal School beside Halle.

- 549 Yellowish grey compact Gypsum, with traversing foliated ditto of a smoke grey colour; from Durnberg.

- 550 Coarse-grained yellowish grey Sandstone; from Weissenfels.

551 The

- 551 The same, but much more spongy; from the same place.
- 552 Yellowish grey compact Limestone; from Naumburg.
- 553 Pale smoke grey, extremely fine splintery compact Limestone; from the same place.
- 554 Somewhat Ironshot compact Limestone, with numerous inlaying Pectunculites; from the same place.
- 555 Compact Limestone, with very numerous inlaying Mitilites; from the same place.
- 556 Yellowish grey Marle, with a very indistinct petrification, whose original probably belonged to the class of Fish; from the same place.
- 557 Similar, only somewhat more Argilliferous Marle; from the same place.
- 558 Blue Martial Earth; from Ekkardsberg.
- 559 A piece of coarse-grained Granite; from the country between Weimar and Erfurth.

Voigt. No. 2.

- 560 A piece of oviform Limestone; from the Weimar precincts.

Voigt. No. 39.

- 561 A Conglomerate of different pebbles, principally of Hornstone and Porphyry, united by a Calcareous matter; from the bank of the Ilm, opposite to Weimar.

Voigt. No. 59.

- 562 Calcareous Tufa; from Weimar.

- 563 Foliated yellowish grey Gypsum; from Ettersberg beside Weimar.

Voigt. No. 24.

- 564 Small splintery, grey compact Limestone, mixed with a little fine-grained ditto; (called Glasstone) from the same place.

Voigt. No. 33.

- 565 Somewhat Ironshot, similar compact Limestone, with very numerous Pectunculites; from the same place.

Voigt. No. 32.

- 566 Yellowish grey, moderately soft, compact Limestone; from the same place.

Voigt. No. 30.

- 567 The same, but finer and somewhat darker; from the same place.

Voigt. No. 31.

- 568 Dark yellowish grey, somewhat inclining to bluish, compact Limestone, with much Flint; from Jena.

- 569 Greenish grey indurated Clay; from Weimar.

Voigt. No. 37.

- 570 White fibrous Gypsum; from the same place.

Voigt. No. 25.

- 571 Compact yellowish grey Limestone, which in some parts properly bears the name of Tufstein; from Belvedere near Weimar.

Voigt. No. 56.

- 572 Red curved fibrous Gypsum; from the Trufelslöchern, between Weimar and Jena.

Voigt. No. 26.

D. *Bohemian and Moravian Mountains.*

a. *Upper Lusatian Mountains.*

- 573 Large-grained Granite; from Hennersdorf.

b. *Leutmeriz Circle.*

- 574 Massive and crystallized Tinstone in Quartz; from Zinwald.

- 575 Four Tin groupings, so called; from the same place.

c. *Saaz Circle.*

- 576 Coarse-grained oviform Limestone; from Carlsbad.

- 577 Small-grained Limestone; from the same place.

- 578 Fibrous Calcareous Sinter, or the (here) so named Sprudelstein; from the same place.

- 579 A piece of Schistose Porphyry with much inlaying Felspar; from Kloster Osseg near Carlsbad.

d. *Berau*

d. Berau Circle.

- 580 Massive Tinstone in Quartz, which is mixed with Mica.
- 581 Massive Siderocalcite in Calcareous Spar; from Ginez.
- 582 A greenish grey inclining to yellowish, cavernous Fossil which very nearly approaches to grey Wacke, and most probably formerly contained Calcareous Spar globules, as the vestiges still existing in the pores indicate.
- 583 Massive Galena with crystallized white Lead Ore, in Ironshot Quartz; from Przibram.
- 584 Disseminated Cinnabar in brown Hæmatites; from Horzowiz.

e. Prachimer Circle.

- 585 Disseminated Copper Pyrites, with Martial Pyrites and some grey Copper Ore in Quartz; from Frauenberg.

Rem. The grey Copper Ore bears here the usual dignified name of *Weisgultigerz*.

f. Moravia.

- 586 Superficial Native Silver and vitreous Silver Ore, with disseminated Galena and Massive Quartz in decomposed Argillite; from Ratiborschütz.
- 587 Massive dark red Silver Ore, in drusy Quartz with some Calcareous Spar and much yellow Blende intermixed; from the same place.
- 588 Massive Galena, with some brown Blende and grey Copper Ore mixed; from the same place.

E. Silesia,

E. *Silesia with the flat country and the Margraviate of Brandenburg.*

a. *Brieg Circle.*

- 589 Massive Galena, mixed here and there with some Iron Ochre; from Tarnowiz.
 590 Coarsely disseminated Galena in Calamine; from the same place.

b. *Strehliz Circle of the Principality of Brieg.*

- 591 Two to three inch long Prismatic Rock Crystals, called Klingstones; from Rummelsberg.

c. *Nimptsch Circle.*

- 592 Dark apple green Chrysoprasium; from Kosemüz.
 593 Bluish grey Semi Opal; from the same place.
 594 A beautiful piece of pearl grey Calcedony, whose colour by degrees runs into greenish, and by the alteration of the other characters seems to make a transition into Chrysoprasium; from the same place.

d. *Principality of Schweidnitz.*

- 595 An aggregate of very much black Hornblende, some Quartz and Felspar; from Zotenberg.

e. *Principality of Münsterberg.*

- 596 Drusy Quartz, with inlaying greenish indurated Clay; from Schreibershau beside Reichenstadt.
 597 Greyish white, very drusy, reddish veined Quartz; from the same place.
 598 A piece of Sienite; from the same neighbourhood.

f. *Hirschberg*

f. Hirschberg Circle.

- 599 Greenish white, smoke grey and carnation red shaded and spotted, fine-grained Limestone, which is there employed as Marble.

F. The Marigenous Mountains of Pomerania, Mecklenburg, Schleswig, &c.

- 600 Fine-grained yellowish grey and brown streaked Sandstone; from Bremen.

G. The Hartz Mountains, Flat Country on this side the Elbe, Magdeburg, Marigenous Mountains of Mansfeld to the Saal.

a. Upper Hartz.

- 601 Massive argentiferous Galena with Calcareous Spar and adhering Argillite; from the Dorothea at Clausthal.

Rem. The Cwt, is said to contain $2\frac{3}{4}$ ounces of Silver.

- 602 Massive grey Copper Ore in Quartz upon Argillite; from Andreasberg.

- 603 Zeolite crystallized in small hexhædral Prisms, upon decayed Martial Pyrites; from the Abendröthe at Andreasberg.

- 604 A groupe of similar, much larger Prisms intersecting one another in the form of a cross, of Zeolite, upon Quartz; from Andreasberg.

- 605 Calcareous Spar crystallized in perfect hexhædral Prisms, upon a compound of Siderocalcite and Galena in Quartz; from the same place.

Rem. It presents itself in the same vein with the former.

- 606 A groupe of double hexhædral pyramidal Calcareous Spar Crystals, upon Quartz; from the same place.

607 Grey

- 607 Grey Wacke; from the Stone Quarry behind the Zellbach near Clausthal.

Voigt. No. 14.

- 608 A greyish black Argillite in which the transition from the grey Wacke is evident; from the same place.
- 609 Acicularly crystallized white Lead Ore which is columnarly aggregated, upon Quartz with adhering Argillite; from Bleifeld at Zellerfeld.
- 610 Quite delicately crystallized white Lead Ore, with overlaying fibrous Malachite and adhering Quartz; from the same place.
- 611 Grey earthy Lead Ore in fine-grained grey Wacke; from the same place.
- 612 A piece of small-grained Granite; from the Summit of the Brokkens.
- 613 Massive Copper Pyrites; from Lautenthal.
- 614 Very compact grey Schistose Porphyry, with extremely fine-grained Felspar; from Blankenburg.
- 615 Greyish white, blackish grey veined, granular Limestone; from Blankenburg.
- 616 Reddish brown greyish white, carnation red and greenish grey spotted and streaked, granular Limestone; from the same place.
- 617 Dark yellowish grey, greyish white spotted, blackish veined, fine-grained Limestone; from Elbingerode.

b. Marigenous Mountains on the Saal.

- 618 Moderately coarse-grained Roestone; from Bernburg.
- 619 Fine-grained ditto; from Seeburg near Eisleben.

c. County of Mansfeld.

- 620 Extremely fine-grained greyish white, dark grey streaked Gypsum; from Eisleben.
- 621 Yellowish grey foliated Gypsum, of small granular distinct concretions; from the same place.
- 622 Very pale yellowish white broad foliated Gypsum; from the same place.
- 623 Greyish black bituminous Marlite with disseminated Copper Pyrites and a Fish impression; from the same place.

624. Narrow

- 624 Narrow striated carnation red Gypsum; from Wimmelburg beside Eisleben.
- 625 Reddish brown, somewhat flaty and very much mixed with Mica, fine-grained Sandstone; from the same place.

Rom. This constitutes the *Todtliegende* throughout the whole extent of the Mansfeld Country.

d. Vorhartz.

- 626 Massive Plumose Antimonial Ore, with an adhering compound of Calcareous Spar, Quartz and grey Copper Ore; from Stollberg.
- 627 Small perfectly transparent prismatic Rock Crystals; from Strasberg.
- 628 Pale grass green, passing into greenish white Fluor Spar; from the same place.
- 629 Massive grey Manganesian Ore in Lamellar Baroselenite; from Ilfeld.
- 630 Petrified Sea Stars upon yellowish grey fine-grained Sandstone; from Hainberg beside Göttingen,

H. The Hessian Mountains with the Archbishopric of Fulda, and the Vogelsgebirge, as far as the Main.

a. The Marigenous Mountains of Lower Hesse between the Sauerland, Upper Hesse and Fulda.

- 631 Octohædrally crystallized grey vitreous Copper Ore, in some parts also the same forming the substance of petrifications, in Argillite; from Frankenberg.
- 632 A bluish grey Basalt altered in an extraordinary manner by the burning of Pit Coal; from the Habichtswald near Cassel.
- 633 The same, which however evidently has suffered alteration in a much inferior degree; from the same place.
- 634 The same of a reddish brown colour and traversed with minute pores; from Carlsberg near Cassel.
- 635 Reddish grey, somewhat Ironshot Sandstone with Dendritæ; from Lahnberg near Marburg.

- 636 Basalt with minutely disseminated Chrysolite ; from Frauenberg near Marburg.

b. Vogelsgebirge.

- 637 Blackish grey Basalt with coarse-grained inlaying reddish brown Chrysolite and minutely disseminated Calcareous Spar ; from Amöneburg in the Territories of Mentz.

Rem. This is the extremity of the Vogelsgebirge towards Hesse.

- 638 Blackish grey Basalt of small granular distinct concretions and a moderate quantity of disseminated Chrysolite ; from Ulrichstein.
- 639 Greyish black somewhat thick flaty Basalt, with a little disseminated Chrysolite ; from Taufstein.
- 640 Compact blackish grey Basalt with much disseminated Hornblende and Chrysolite ; from Bielstein.
- 641 Reddish brown very porous Amygdaloid, in some parts of which the Lithomarga in the Pores is still visible, but which however probably originates from the decomposition of another Fossil ; from Eichel Sachsen.

c. Upper Hesse.

- 642 Greyish white, here and there somewhat Ironshot Sandstone ; from Berka on the Ilm.

Voigts. Catal. No. 28.

- 643 The same a little coarser and of a reddish brown colour ; from the same place.

Voigt. No. 29.

d. Archbishopric of Fulda.

- 644 Blackish grey Basalt with much disseminated Calcareous Spar and extremely fine Chrysolite ; from Herssfeld.

Voigt. No. 49.

645 Moderately

- 645 Moderately thick flaty Schistose Porphyry with a little inlaying Felspar; from the Pferdskopf on the Euben.

Voigt. No. 55.

- 646 Very porous Basalt of a blackish grey colour, with inlaying red Garnets; from the same place.

Voigt. No. 48.

- 647 Bluish grey Basalt, with crystallized Calcareous Spar; from the same place.

Voigt. No. 46.

- 648 Reddish grey decayed Basalt with intermingled Hornblende Crystals; from the same place.

- 649 Greyish white decayed Schistose Porphyry; from the Summit of the Pferdskopf.

- 650 Reddish brown Basalt, with numerous Hornblende Crystals and in some places with large Pores which are here and there lined with Calcedony, but in other places filled with Chrysolite; from the Source of the Fulda.

Voigt. No. 45.

- 651 A little softer and darker Basalt wherein more Zeolite and less Calcedony, but besides also, Hornblende and Chrysolite occur; from the same place.

Voigt. No. 47.

e. The Mountains on this side the Main,

- 652 A smooth Gryphite in grey compact Limestone; from Biber.

- 653 Impressions of similar petrifications in the same Fossil; from the same place.

- 654 Bluish grey Basalt, with intermixed sulphur yellow particles which are probably a somewhat decomposed sparry Iron Ore, of which reddish brown traces may still be detected; from Kleinsteinheim beside Hanau.

655 The same of a perfectly similar appearance; from Bokkenheim beside Frankford on the Main.

656 Smoke grey Basalt traversed by very small Pores, in which only the vestiges of the Fossil which was formerly imbedded in it are now to be discovered; from the same place.

Voigt. No. 43.

657 The same, much more Ironshot in the rift, and here and there traversed with moderately large blebs, in which vestiges of the Fossil formerly imbedded in it may yet be detected; from the same place.

Voigt. No. 44.

658 Liver brown, very beautiful Semi Opal, part of a pebble; from Avestein beside Frankford.

Voigt. No. 50.

659 Yellowish grey Basalt, traversed with small Pores, which are spotted ochre yellow; from Sandhof.

660 The same of a dark grey colour with larger Pores, but with an adhering reddish decayed Stone; from the same place.

661 Brownish red Basalt, traversed with Pores partly conical, wherein are extremely delicate Zeolite and Calcareous Spar Crystals; from the same place.

662 Grey Basalt, with the so named botryoidal Rock Crystal; from the same place.

Rem. The latter is very famous under the name of the Lava Glass and Mullers Glass. (Hyalite of Kirwan.)

I. *The Nassavian Rhine Mountains, Westerwald, and Westphalia, as also Cologne with Treves beyond the Rhine.*

663 Sparry Iron Ore crystallized in Rhombs of middling size, with some overlaying micaceous Iron Ore; from Nassau Siegen.

K. *The*

K. *The Mountains beyond the Main, the Palatinate and the Dutchy of Deux Ponts, with Treves on the Moselle and on this side the Rhine.*

a. *The Palatinate.*

- 664 Diffeminated and superficial high red Cinnabar, upon tolerably decayed Argillite; from Reichenbach.
665 Native Mercury with bright red Cinnabar, upon and in Quartz.
666 Greenish grey Novaculite; from Hüftenberg.

b. *Deux Ponts.*

- 667 Massive dark and bright red Cinnabar in Ironshot Hornstone; from Stahlberg.
668 Native Mercury with Massive Cinnabar in Calcareous Spar which is mixed with Hornstone; from the same place.
669 Superficial Cinnabar, in grey, tolerably compact, Sandstone wherein Stone Coal occurs intermixed; from Pezberg.
670 Diffeminated bright red Cinnabar in yellowish and bluish grey indurated Clay, which, as may be observed on one side, is decomposed Argillite, and there called Lettengebirge; from the same place.
671 A very large piece of dark red Cinnabar, with some adhering indurated Clay; from the Elizabeth Mine, at the Brukenberg.
672 A slip of Massive dark red Cinnabar, upon which is a little superficial compact Malachite, with adhering somewhat Ironshot Argillite on both sides; from the same place.
673 Massive bright red Cinnabar with some dark ditto, in compact brown Ironstone which is mixed with Calcareous Spar.
674 Superficial high red Cinnabar upon a compound of Martial Pyrites with compact brown Ironstone, some fine splintery Quartz and a little Siderocalcite; from the same place.

675 Massive

- 675 Massive and superficial common and bright red Cinnabar, with adhering Hornstone on both sides; from the same place.
- 676 Native Mercury in a somewhat argilliferous and also Ironshot Hornstone.
- 677 Native Mercury with much Cinnabar in Ironshot Hornstone; from the Rosebush.
- 678 Narrow slips of Massive dark red Cinnabar, with superficial bright red ditto, in yellowish grey argillaceous Stone, perhaps decayed Argillite; from the Charles Theodore at Moschellandsberg.
- 679 The same, in veins, with extremely slight vestiges of Native Almagama, upon the same sort of Stone, which on the outer side is very Steatitical; from the same place.

c. Treves, this side the Rhine.

- 680 Smoke grey, somewhat porous Basalt; from Niederrhein near Andernach on the Rhine.

Voigt. No. 51.

- 681 Dark yellowish grey Basalt with very numerous inlaying Hornblende Crystals, and here and there with dots of Zeolite; from the same place.

- 682 Reddish grey Terras, in which grains of Argillite, water borne together, are to be observed; from Pleith beside Andernach.

Voigt. No. 52.

- 683 Roundish fragments of Pumice, which are said to lay therein; from the same place.

Voigt. No. 53.

L. Austrian and United Netherlands.

- 684 Partly yellowish, partly somewhat grey compact Limestone, with very numerous Chamites, Diszites and Pectunculites; from Brussels in Brabant.
- 685 Light yellowish grey compact Limestone, with inlaying Petrified Heartmuscles; from Mästricht.
- 686 A large Net-like Escharite in compact Limestone; from Gröningen.

M. The

M. *The Saxon Mineral and Upper Lusatian Mountains.*

a. *The Neustadt Circle with Saalfeld.*

Charpentiers Mineral : Geog. of Saxony.

S. 331—348.

- 687 Greyish black very beautiful Roof Slate ; from Lehsten near Saalfeld.

Voigt. No. 11.

- 688 Massive grey Copper Ore, with a little Baroselenite in sparry Iron Ore ; from Saalfeld,
 689 Massive vitreous Copper Ore with Ironshot Lamellar Baroselenite ; from the same place.
 690 Cobaltic germinations with black earthy Cobalt in grey Copper Ore ; from the same place.
 691 Massive Copper Pyrites in Ironshot Tile Copper Ore ; from the Pelican and Christian Ernst at Grosskamsdorf.
 692 Compact Malachite, upon and in Ironshot Copper Pyrites ; from the same place.
 693 A compound of Tile Copper Ore and Ironshot Copper Pyrites, with a little fibrous Malachite ; from the same place.
 694 Ironshot compact Limestone.
 695 Massive grey Copper Ore in Siderocalcite, with adhering Ironshot Argillite ; from the same place.

Rem. The Cwt of pure grey Copper Ore is said to contain twenty marks of Silver, which however appears to be overrated.

- 696 Calcareous Spar crystallized in elongated double hexædral Pyramids which are again terminated by three planes, in a sparry Iron Ore mixed with much Iron Ochre.
 697 Calcareous Spar crystallized in slender acicular Pyramids, upon Siderocalcite which is mixed with much Iron Ochre ; from the same place.
 698 Massive Copper Pyrites in a compound of bluish grey indurated

- indurated Marle (Wakkengebirge) with Lamellar Baroselenite and Siderocalcite; from the same place.
- 699 Coarsely disseminated Copper Pyrites in Tile Copper Ore, which is mixed with much Iron Ochre; from the same place.
- 700 Massive Tile Copper Ore in Iron Ochre upon which is some superficial compact Malachite; from the same place.
- 701 Superficial Mountain green and Cobaltic incrustation upon Limestone; from the same place.
- 702 Martial Pyrites crystallized in perfect small Octahædrons, with variegatedly tarnished Copper Pyrites, intermixed with Calcareous Spar and also sparry Iron Ore and with adhering Siderocalcite; from the same place.
- 703 Disseminated and superficial blue Copper Ore, upon and in Lamellar Baroselenite, which in some parts is Ironshot, in others containing Manganese.
- 704 Massive Copper Pyrites, with some grey Copper Ore in Lamellar Baroselenite.
- 705 Massive pavonated Copper Pyrites in Siderocalcite, with adhering, marlaceous, decomposed Argillite.
- 706 Coarsely disseminated compact red Copper Ore, with fibrous Malachite in very Ironshot sparry Iron Ore.
- 707 Massive Copper Pyrites in Siderocalcite with adhering Calcareous Sandstone.
- 708 Massive Pitch Coal with Copper Pyrites, in Siderocalcite.

Rem. This is a great rarity.

- 709 Massive compact Mountain green in Ironshot Lamellar Baroselenite.
- 710 Crystallized micaceous Iron Ore, minute botryoidally accumulated and mixed with much Iron Ochre.
- 711 Superficial blue Copper Ore with some Mountain green and Cobaltic Incrustation, upon extremely fine-grained sparry Iron Ore.
- 712 Coarse-grained sparry Iron Ore with intermingled Copper Pyrites and Lamellar Baroselenite, and also overlaying fibrous Malachite.

713 Small

- 713 Small-grained sparry Iron Ore mixed with much fibrous Malachite and Iron Ochre.

Rem. It is very porous, and the Pores have a very great resemblance to those in the grey Fuldean Basalts, which are described as Lavas principally on that account, they seem however to derive little certainty from this.

- 714 Sparry Iron Ore crystallized in perfect Lenses, with intermingled grey Manganesian Ore.
715 A groupe of small and very small perfectly Rhomboidal similar Crystals.

b. The Voigtland Circle.

Charpentier, S. 305—319.

- 716 Topaz Rock, with inlaying Massive and some crystallized Topaz; from Schneckenstein near Auerbach.
717 Very numerous wine yellow prismatic Topaz Crystals; from the same place.

c. The proper Erzgebirge Circle.

a. a. Vicinity of Eisbenstock.

Charpentier, S. 267—277.

- 718 Compact red Ironstone.
719 The same, with reniform red Hæmatites.
720 Large reniform red Hæmatites.
721 Massive and crystallized Actynolite in Quartz, which is mixed with a little green Earth.
722 A piece of a large pebble of black Schörl with a little Quartz; from the Eibenstock Stream Works.
723 A Quartz pebble with intermixed narrow striated black Schörl; from the same place.

b. b. Schneeberg Country,

Charpentier, S. 278—292 and 245—248.

a. With exact determination of place.

- 724 Compact red Ironstone; from the Spizleithe.
725 The same, in some places very Petrofiliaceous; from the same place.
726 Compact brown Ironstone coated here and there with a little Hæmatites.
727 Minute botryoidal compact brown Ironstone with adhering

- hering exceeding fine splintery Quartz; from the same place.
- 728 Brown, inclining to greenish, Garnet, mixed with some Ironshot indurated Clay; from the same place.
- 729 Green Garnet with fine intermixed compact brown Ironstone; from the same place.
- 730 The same, of fine-grained distinct concretions.
- 731 Reddish brown Jasper, whose fracture verges on the splintery.
- 732 A slip of Massive Garnet with adhering exceeding fine Hornslate.
- 733 Massive Garnet in traversing slips, with small veins of brown Blende and Native Bismuth, between Argillite; from the same place.
- 734 The same, mixed with more brown Blende and also with a little Calcareous Spar; from the same place.
- 735 Blackish grey and greenish grey Argillite and Hornblende Slate, wherein the latter is the darkest, and is here difficult to be recognized on account of its great compactness; from the same place.
- 736 A slip of grey Actynolite, which occurs in striped Argillite graduating into Siliceous Schistus; from the same place.
- 737 Coarse-grained Granite; from Hasenberg.
- 738 The same, with adhering Quartz intersected by a narrow vein of Jasper; from the same place.
- 739 Moderately dark greenish grey Argillite; from Kargwald.
- 740 Compact brown Ironstone, with overlaying Hæmatites in Quartz.
- 741 Reniform Hæmatites upon compact brown Ironstone; from the same place.
- 742 Minute reniform brown Hæmatites with the same admixture; from the same place.
- 743 Veiny Lithomarga in similar compact brown Ironstone; from the same place.
- 744 Ironshot Quartz with pyramidal impressions; from the same place.
- 745 A groupe of hexhædral pyramidal crystallized Quartz, whereon drusy Martial Pyrites occurs, upon Massive Quartz; from Brünlasberg.

- 746 Bluish grey fine flaty Argillite; from the Adam Heber.
- 747 A very Quartzzy thick flaty Argillite; from the same place.
- 748 Yellowish grey, mountain green striped Argillite; from the same place.
- 749 Similar Argillite with much intermixed Siderocalcite; from the same place.
- 750 Massive and also veiny Siderocalcite, in dark greenish grey Argillite; from the same place.
- 751 The same, in mountain green Argillite; from the same place.
- 752 Moderately solid grey Argillite, somewhat Ironshot in the rifts, and traversed with veins of Siderocalcite; from the same place.
- 753 Extremely fine-grained Calcareous Spar, upon mountain green Argillite; from the same place.
- 754 Dark grey Argillite, with superficial, somewhat drusy, Martial Pyrites and intermixed Siderocalcite; from the same place.
- 755 Crystallized and also veiny red Silver Ore in Calcareous Spar, with adhering grey Quartz; from the same place.
- 756 Finely disseminated Martial Pyrites in Calcareous Spar which is mixed with Siderocalcite and Quartz, with adhering Argillite; from the same place.
- 757 Minutely disseminated Copper Pyrites in Siderocalcite, with adhering Argillite; from the same place.
- 758 Pale rose red Siderocalcite with some Quartz, upon Argillite; from the same place.
- 759 Massive striated Pyrites, in a compound of Quartz and Siderocalcite, upon which Calcareous Spar has crystallized; from the same place.
- 760 Disseminated and crystallized striated Pyrites, upon pale greenish grey Quartz which is mixed with much Calcareous Spar; from the same place.
- 761 Plumiformly streaked Native Bismuth in Quartz which is mixed with some Calcareous Spar; from the same place.
- 762 Bismuth Ochre upon Quartz, with adhering Argillite; from the same place.
- 763 Small-grained Siderocalcite mixed with Massive Calcareous

- careous Spar and with adhering Argillite; from the same place.
- 764 A groupe of compressed thin trihædral pyramidal Calcareous Spar Crystals, upon a compound of Quartz and Massive Calcareous Spar; from the same place.
- 765 A very beautiful groupe of thick similar pyramidal Crystals of middling size, in drusy Quartz; from the same place.
- 766 Calcareous Spar crystallized in pyramidally accumulated Rhombs, upon Quartz which is mixed with the same Massive; from the same place.
- 767 Calcareous Spar crystallized in small hexhædral prisms with the usual acuminations, the Crystals aggregated into long pyramids, upon Quartz which is mixed with Argillite; from the same place.
- 768 A slip of fine-grained Granite with extremely little Mica, between Gneiss which in some places approaches to Schistose Hornblende; from the same place.
- 769 A groupe of perfect lenticular Siderocalcite Crystals, upon drusy Quartz; from the White Hart at Schneeberg.
- 770 Massive and coarsely disseminated, dark and light red Silver Ore, with a little striated Pyrites in Calcareous Spar.
- 771 Rhomboidal crystallized Siderocalcite, upon Massive, in which hepatic Pyrites is disseminated, with adhering Argillite; from the Priest and Levite.
- 772 Massive coarse-grained Siderocalcite mixed with drusy Quartz; from the same place.
- 773 Small-grained Granite; from the deep Maxemler Gallery.
- 774 A very Ironshot Quartz and Micaceous Argillite.
- 775 Yellowish grey very fine Hornstone.
- 776 A very beautiful reddish and yellowish brown Jasp'-agate, mixed with much drusy and Ironshot Quartz; from the same place.
- 777 Bluish grey Calcedony with Hornstone, in drusy, also Ironshot Quartz; from the same place.
- 778 Reddish brown Hornstone which graduates into Quartz,

- Quartz, with adhering coarse-grained, somewhat decomposed Granite; from the same place.
- 779 Massive reddish brown Hornstone in Quartz, also with adhering Granite; from the same place.
- 780 Very decomposed Granite, upon the same compound.
- 781 The same, but in which detached cavities occur in which pyramidal Quartz has crystallized, in the same manner as Zeolite and Calcareous Spar is met with in Basalt; from the same place.
- 782 Ironshot Quartz with cubic impressions; from the Wild Boar.
- 783 The same, with pyramidal impressions; from the same place.
- 784 Mica crystallized in small hexhædral prisms, in coarse-grained Granite; from the Profr: Pinishaft.
- 785 Massive and disseminated Copper Pyrites, and also grey Copper Ore, in Quartz; from Rappolt.
- 786 Superficial Martial Pyrites upon drusy Quartz; from the same place.
- 787 Massive white Cobalt Ore, with grey Cobalt Ore in drusy Quartz, upon which hepatic Pyrites occurs; from the same place.
- 788 Specular white Cobalt Ore upon Quartz; from the same place.
- 789 Impure Cobaltic incrustation upon drusy Quartz; from the same place.
- 790 Massive Native Bismuth in Cobaltiferous Quartz; from the same place.
- 791 Similar, beautifully columbinated Native Bismuth in Quartz, with a little decomposed Argillite; from the same place.
- 792 Massive and coarsely disseminated Galena in drusy Quartz; from the same place.
- 793 Pearl grey, double hexhædral pyramidal crystallized Quartz, accumulated into a groupe, upon Argillite; from the same place.
- 794 Bright olive green Quartz with traversing Siderocalcite; from the same place.
- 795 Coarsely disseminated Kupfernickel and Massive white Cobalt Ore, with overlaying Nickel Ochre, in reddish brown Quartz.

796 Superficial

- 796 Superficial Cobaltic incrustation upon drusy Quartz, with adhering Granite; from the same place.
- 797 A groupe of double hexhædral pyramidal Quartz Crystals, in and upon cellular Quartz, upon which also some Siderocalcite occurs; from the same place.
- 798 Quartz crystallized in perfect tetrahædral pyramids, which is often taken for Hornstone; from the same place.
- 799 A piece of pale yellowish grey inclining to greenish, extremely fine splintery Quartz, with a little adhering Argillite; from the same place.
- 800 Quartz with notches, and some few small Crystals of Martial Pyrites strewed over; from the Moriz.
- 801 Yellowish grey Argillite with blackish grey oblong spots; from the Muhlberg.
- 802 Small garnet Crystals in Schistose Mica; from Rathswald.
- 803 Massive black Schörl in Ironshot Quartz; from Schönhaide.
- 804 Indurated greenish and yellowish grey Talc, with reddish stripes and finely disseminated Emery; from Ochsenkopf.
- 805 Very beautiful reddish white Porcelain Clay; from Aue.
- 806 Decomposed Granite; from the same place.

Rem. Here may be observed how the Felspar passes by degrees into Porcelain Clay.

- 807 Dark greenish grey Amygdaloid, with still numerous inlaying Globules; from Zwickau.
- 808 Lavender blue inclining to Cochineal red, indurated Lithomarga; from the same place.
- 809 The same, with yellowish white spots; from the same place.
- 810 Variegatedly tarnished Massive and crystallized Arsenical Pyrites, in somewhat decomposed Argillite; from Hohenstein.
- 811 Copper Pyrites, traversed by numerous very delicate slips of Quartz, with both walls of Argillite.
- 812 Dark liver brown Jasper; from Trasdorf beside Kemniz.

- 813 The same with reddish brown mixed, and with adhering drusy Quartz; from the same place.
- 814 Reddish brown Jasper traversed with black delicate veins; from the same place.
- 815 Minute reniform bluish grey Calcedony coated with drusy Quartz, in Jasper; from the same place.
- 816 Massive, somewhat drusy, partly yellowish grey, partly smoke grey Quartz, upon reddish brown and liver brown Jasper; from the same place.
- 817 Disseminated Mica in Jasper, whereon in some places, very beautiful delicate dendritic delineations are exhibited; from the same place.
- 818 A very beautiful large piece of reddish brown, yellowish and reddish grey striped Jasper; from Gnadstein.
- 819 Disseminated Cinabar in Quartz, with adhering greenish grey Argillite on both sides; from Hartenstein.
- 820 Massive Cinabar in Ironshot Quartz, also with adhering Argillite; from the same place.
- 821 Greenish grey Argillite with mountain green spots; from Hormersdorf beside Lösnitz.

β. From uncertain places in this vicinity.

- 822 Reddish white Lamellar Baroselenite; perhaps from the Adam Heber.
- 823 A greenish grey somewhat calcareous sort of Stone, which effervesces with acids, but in other respects very much resembles Wacken, with inlaying Charnites and other small indistinct petrifications.
- 824 The same, with Pectunculites also.
- 825 The same Fossil, with small somewhat curved indistinct petrifications.
- 826 The same, with coralliform, tending towards a center, very probably coral petrifications.
- 827 The same Fossil, with impressions of Pectunculites.
- 828 Disseminated Martial Pyrites in reddish grey somewhat Quartz Argillite.
- 829 Disseminated compact Malachite in Ironshot Quartz.

830 Specular

- 830 Specular white Cobalt Ore, upon a very Quartzzy somewhat decomposed Argillite.
 831 Ironshot grey Hornstone.
 832 Bluish grey Argillite traversed by slips of Quartz.
 833 Greenish grey very Quartzzy Argillite.
 834 Somewhat decomposed Hornstone with Dendritæ.
 835 A variety of Trap, wherein the Quartz and Hornblende are small-grained, but yet are still to be distinguished from one another, but in which no Felspar occurs.

e. e. Johan Georgenstadt Country.

Charpentier, S. 249—266.

- 836 Superficial Native Silver, upon Jasp'agate which is mixed with Quartz; from the Eleonora.
 837 Reticulated Native Silver, with white Cobalt Ore in Quartz.
 838 Superficial Native Bismuth upon Ironshot Granite; from the same place.
 839 Yellowish white, passing into greyish, mountain Cork; from the same place.

g. Annaberg with Weisenthal and Schiebenberg.

Charpentier, S. 212—235.

- 840 Schistose Mica with Garnets; from Weisenthal.
 841 Compact brown Ironstone, upon which some Mica occurs; from Schiebenberg.
 842 Dark greenish grey common Asbestus; from the same place.
 843 Delicate capillary Native Silver, with some Copper Pyrites and much overlaying Nickel Ochre, in Quartz; from the Marcus Röhling.
 844 Massive Native Bismuth, with much overlaying, in some places decayed, Cobaltic incrustation; from the same place.
 845 Decayed Hepatic Pyrites mixed with Nickel Ochre, upon Quartz; from the same place.

846 Small.

- 846 Small-grained greyish white Limestone; from Krotendorf.

Voigts Catal. No. 13.

b. Geyer.

Charpentier. S. 200—210.

- 847 Massive Magnetic Martial Pyrites mixed with some Copper Pyrites; from the Kiesszech.
- 848 Brown Garnet with a little intermixed Hornstone; from the same place.
- 849 Coarsely disseminated Tinstone with Arsenical Pyrites and much Mica in Quartz; from the Palm Tree.
- 850 Yellowish grey Mica of large and oblong granular distinct concretions; from the Stockwork at Geyer.

i. Ehrenfriedersdorf.

Charpentier. S. 190—199.

- 851 Massive Copper Pyrites in Actynolite; from the Krebsberg.
- 852 Coarsely disseminated Tinstone in Quartz; from the Good Fortune.
- 853 Minutely disseminated Tinstone in Ironshot Lithomarga and Quartz, with a little adhering Gneiss.
- 854 Massive and crystallized Tinstone in Quartz, wherein some Steatites occurs; from the same place.
- 855 Disseminated and crystallized Tinstone in a compound of Quartz and a very Talcose Mica; from the same place.
- 856 Massive Arsenical Pyrites, with Fluor Spar and crystallized Tinstone in Quartz, with a little Steatites; from the Duke Charles.
- 857 Tinstone and Crystals of Arsenical Pyrites, in a compound of indurated Lithomarga, some Steatites, very much Quartz, and some Fluor Spar; from the same place.

- 858 Violet blue and grass green Fluor Spar in Quartz; from the same place.

k. Marienberg.

Charpentier. S. 173—189 and 200.

- 859 Carnation red and smoke grey tetrahædral prismatic crystallized Lamellar Baroselenite; from the Fabian Sebastian.
- 860 A compound of obliquely reflecting Galena, brown Blende and Martial Pyrites, and also, for the most part crystallized Baroselenite; from the three young Brothers.
- 861 Massive Galena with some white Lead Ore and Martial Pyrites mixed, and also with adhering Ironshot Quartz; from the Holy Trinity at Tschoppau.
- 862 Crystallized blue Lead Ore, with white ditto and some Ironshot Quartz; from the same place.
- 863 Curved fibrous common Asbestus, in some places strongly translucent; from Zöbliz.
- 864 Dark blackish green Serpentine, with Garnets; from the same place.

Voigts Catal. No. 8.

- 865 Greenish grey, black veined and spotted Serpentine; from the same place.
- 866 The same, mixed with Garnets and with adhering Isabella yellow ditto, wherein are numerous stripes of Asbestus; from the same place.
- 867 Brownish red Serpentine traversed with numerous veins of white Lithomarga; from the same place.
- 868 Disseminated Arsenical Pyrites and Tinstone, with some Copper Pyrites and superficial Fluor Spar, in greenish grey decomposed Argillite which is mixed with much Quartz.

l. Altenberg.

I. *Altenberg.*

Charpentier. S. 153—168.

- 869 Massive and also crystallized Tinstone in Quartz; from the Saxon Zinwald.
- 870 Cemented Native Copper, upon tubular Iron; from the Stockwork at Altenberg, as are also all the following specimens to No. 889.
- 871 Massive variegatedly tarnished Copper Pyrites in Ironshot Quartz.
- 872 Massive Martial Pyrites which in some places is perfectly hepatic Pyrites, in Quartz.
- 873 A compound of Arsenical Pyrites and Copper Pyrites.
- 874 Massive Arsenical Pyrites with disseminated specular Iron Ore.
- 875 Massive and coarsely disseminated Arsenical Pyrites, with adhering Quartz and some greenish grey indurated Clay.
- 876 The same compound, but with much Copper Pyrites and visible Hornblende.
- 877 Disseminated Molybdæna in dark mountain green indurated Clay.
- 878 Massive specular Iron Ore in Quartz.
- 879 Disseminated specular Iron Ore with superficial compact Malachite, upon very Ironshot Quartz.
- 880 Massive Tinstone with some crystallized Martial Pyrites and overlaying Porcelain Clay which probably owes its origin to Felspar.
- 881 Very coarse-grained Granite wherein the Quartz predominates, with Tinstone Crystals.
- 882 Very small Tinstone Crystals, in a dark greenish grey Steatites which is somewhat Ironshot.
- 883 Small-grained Granite with much Mica and decomposed Felspar.
- 884 Yellowish white Massive Schörlite in an oblong grained Granite.
- 885 A very coarse-grained Granitic Rockstone, which on account of the largeness of the Quartz grains, might with no great impropriety bear the name of Breccia.

- 886 White indurated Lithomarga in very Ironshot Quartz.
- 887 A similar Ironshot Quartz with dendritic delineations.
- 888 A visibly decomposed, very Quartzzy Granite, with overlaying violet scented Moss.
- 889 A Rockstone of the Granitic order, wherein is an uncommonly small quantity of Quartz, very much Mica, and the Felspar is decomposed to Steatites.
- 890 Very Ironshot green Actynolite; from Gieshübel.
- 891 A Petrofiliceous firm Porphyry, wherein very much Quartz and little Hornstone is intermixed; from Frauenstein.
- 892 Porphyry with much large-grained Felspar; from the same place.
- 893 Decomposed reddish brown Porphyry; from the same place.
- 894 Decomposed greenish grey Porphyry; from the same vicinage.
- 895 Firm dark greenish grey Porphyry, with numerous slips of Quartz and only a few vestiges of decomposed Felspar; from the same place.

Rem. This compound comes somewhat near to Trap.

m. Freyberg.

Charpentier. S. 77—132.

a. Brander District.

- 896 Crystallized imperfectly dendritically aggregated Native Silver, upon and in Baroselenite, with some adhering Gneiss; from the Himmelsfürst.
- 897 Reticulated Native Silver with very much vitreous Silver Ore, in dark carnation red Lamellar Baroselenite; from the same place.
- 898 Somewhat amorphous vitreous Silver Ore, upon Quartz wherein a little Martial Pyrites is disseminated; from the same place.
- 899 Massive dark and light red Silver Ore, mixed with much Martial Pyrites and Quartz; from the same place.

900 Massive

- 900 Massive dark red silver Ore in Galena which is mixed with a little Quartz; from the same place.
- 901 Cubic crystallized Galena, with much overlaying Hepatic Pyrites; from the same place.
- 902 Massive obliquely reflecting Galena, with much Hepatic Pyrites and overstrewn Siderocalcite Crystals; from the same place.
- 903 A beautiful Calcareous Spar groupe of double trihedral pyramidal Crystals, upon decayed Gneiss; from the same place,
- 904 Superficial Native Silver upon Quartz, wherein a little Galena and Copper Pyrites are disseminated, with adhering Gneiss; from the Neuglück.
- 905 Thick superficial red Silver Ore upon Quartz, with adhering Gneiss; from the same place.
- 906 Coarsely disseminated Arsenical Pyrites in Quartz which is traversed with Gneiss in slips.
- 907 Red Jasper mixed with much Quartz and Martial Pyrites; from the same place.
- 908 Plumose Antimonial Ore upon a Quartz and Siderocalcite groupe, which is seated upon a compound of Quartz and Siderocalcite wherein much Galena and Blende is mixed, with adhering Gneiss underneath; from the Old Green Branch.

β. Stadt District.

- 909 Massive grey Copper Ore with Copper Pyrites, very much Galena, a little Jasper, and superficial red Silver Ore, in Quartz; from the Bescherten Glück, &c.
- 910 Pectinated Hepatic Pyrites upon Siderocalcite, with adhering Gneiss; from the Morning Star.
- 911 A slightly curved and thick Slaty Gneiss, wherein all the constituent parts are very distinct; from Lösnitz.

Voigt. Catal. No. 9.

- 912 A Quartz groupe with much crystallized Martial Pyrites and also Siderocalcite, upon Massive Quartz; from the Kühschacht.

913 Massive

- 913 Massive Galena which is mixed with much Martial Pyrites ; from the same place.
- 914^a A compound of much Arsenical Pyrites with some Galena and Copper Pyrites ; from the same place.
- 914^b Massive black Blende with Quartz, and a very large quantity of Martial Pyrites mixed ; from the same place.
- 915 Cellular and drusy Quartz with much, in some places decayed, crystallized Martial Pyrites ; from the same place.
- 916 Crystallized Gypsum upon decayed Gneiss ; from the Elizabeth.
- 917 The so named Coral Agate, or a compound of much Jasper, Carnelian and principally Petrofiliaceous Quartz ; from the Halsbach.

v. Halsbruk District.

- 918 Massive purple Copper Ore, with compact vitreous Copper Ore in Quartz, whereon is some superficial compact Malachite ; from the Young King Daniel.
- 919 Massive Galena in Fluor Spar, with adhering specular Hepatic Pyrites, and intermixed Quartz.
- 920 Massive Copper Pyrites with Galena and Quartz, with a little Fluor Spar and adhering decayed Gneiss ; from the Lorenz Gegentrum.
- 921 Massive variegatedly tarnished Copper Pyrites ; from the same place.
- 922 Coarsely disseminated white Copper Ore, with Copper Pyrites in Quartz ; from the same place.
- 923 Massive Copper Pyrites in Calcareous Spar, with adhering sparry Iron Ore ; from the same place.
- 924 A very beautiful piece of thick columnar, acicular Baroselenite, upon Ironshot Quartz ; from the same place.
- 925 Massive Galena in drusy Quartz ; from the Isaac by Rothfurt.
- 926 Crystallized Galena with Hepatic Pyrites, in and upon drusy Quartz ; from the same place.
- 927 A groupe of very broad hexhædral prismatic Lamellar Baroselenite Crystals, upon compact Baroselenite with impressions ; from the same place.

928 Similarly

- 928 Similarly crystallized Baroselenite, but smaller and somewhat cellularly accumulated, with some Martial Pyrites underneath; from the same place.

δ. Outer Districts.

α. First Division.

- 929 A groupe of rectangular, tabular, Lamellar Baroselenite Crystals; from Grossschirma.
 930 Dark carnation red Massive Baroselenite of very thin Lamellar distinct concretions; from the same place.
 931 Superficial red Silver Ore upon Gneiss; from Grossvoigtsberg.

β. Second Division.

- 932 Massive grey Copper Ore in drusy Fluor Spar which is mixed with a little Calcareous Spar; from Gersdorf.
 933 Massive and some crystallized grey Copper Ore in the same compound, only with some Quartz in addition; from the same place.
 934 Massive Galena in Fluor Spar, with adhering striated Pyrites underneath; from the same place.
 935 Coarsely disseminated Galena, with crystallized Martial Pyrites and Quartz, and also drusy Fluor Spar; from the same place.
 936 Minutely disseminated Galena, in Fluor Spar which is mixed with a little tabular Baroselenite; from the same place.
 937 A groupe of perfectly cubic crystallized yellow Fluor Spar; from the same place.
 938 Very large-grained Granite with much Mica; found between Gersdorf and Nossen.
 939 Greenish grey Fuller's earth; from Rosswein.
 940 Olive green, dark green veined, Serpentine; from Waldheim.
 941 Red decomposed Porphyry with much inlaying Lithomarga; from Rochlitz.
 942 Coarsely disseminated Argentiferous Arsenical Pyrites in Quartz; from Braunsdorf.

943 Massive

- 943 Massive Galena with capillary Native Silver and much Hepatic Pyrites mixed; from Oberschönau.
- 944 Small and fine-grained Galena in Siderocalcite, which is mixed with somewhat yellowish brown Semi Opal; from Memdorf.
- 945 A Granite very rich in Felspar, wherein the Mica is half decomposed to Steatites; from Oedervan.
- 946 Granite, wherein the Felspar also is decomposed, with finely disseminated Martial Pyrites; from the same place.
- 947 Massive Arsenical Pyrites with much black Blende, and a little Galena which is mixed with Siderocalcite; from Munzig.
- 948 Dark leek green Pitchstone; from the Garsebach near Meissen.
- 949 Yellowish brown Pitchstone; from the same place.
- 950 Reddish brown Pitchstone which constitutes the basis of a Porphyry, wherein very small Felspar and Quartz grains lay; from Korbiz.
- 951 An entirely decomposed Porphyroidal Granite, just as it occurs close beside Meissen.
- 952 A similar ditto, with very much coarse-grained Felspar; from the same place.
- 953 A Granite, not so very much decomposed, wherein some Felspar Crystals still occur.
- 954 Very small-grained Sienite, with a very large quantity of carnation red Felspar; from Schärftenberg.
- 955 Massive yellow Blende with a little intermingled Siderocalcite; from the same place.

n. The Country on the Elbe.

Charpentier. S. 33—60.

- 956 Coarse-grained Granite, in which the silvery white Mica is particularly conspicuous; from Braunsdorf near Dresden.
- 957 A decomposed Isabella yellow argillaceous Porphyry; found as a boulder near Kesselsdorf.
- 958 A very beautiful yellowish brown Woodstone with dark clove brown and yellowish white flame-like spots; from little Naumdorf by Dresden.

959 Bright

- 959 Bright yellowish grey Tripoli; from Potschappel.
- 960 Slaty Coal, with intermingled Pitch Coal; from the same place.
- 961 A very impure sandy compact Limestone; from the the Vicinity of Pirna.
- 962 Reddish white, ochre yellow, extremely fine-grained Sandstone; from Pirna.
- 963 Fine-grained, and much more porous, yellowish grey Sandstone, with an adhering decomposed sort of Stone which seems to have been Granite.
- 964 Small-grained Sandstone with separate inlaying coarse grains, and indistinct petrifications; from the same place.
- 965 The same Fossil, with numerous impressions of petrifications, principally of streaked Chamites, and also apparently, inlaying Turbinites; from the same place.
- 966 Very solid greyish black Basalt, with a little small-grained inlaying Chrysolite; from Stolpe.

o. Upper and Lower Lusatia,

Charpentier. S. 5—32.

a. a. The Vicinity of Königsbruck,

Leske's Tour through Saxony, 23.

- 967 Fine-grained Granite; from the summit of Keulenberg.
- 968 The same, to which on one side an extraordinary quantity of Quartz adheres; from the same place.
- 969 Another variety of this Granite with very much black Mica and very little Felspar; from the Keulenberg itself.
- 970 Small-grained Granite with pale ochre yellow and milk white Felspar and a little Quartz, but much Mica; from the foot of Keulenberg.
- 971 A tetrahedral prismatic distinct concretion of dark

3 Y
smoke

smoke grey Hornslate, with very small disseminated Felspar; from Tiefenthal.

Rem. This Fossil is thus named frequently, by Leske, as it is also by Charpentier and Voigt, now and then also Horn Porphyry and Schistose Porphyry.

Leske, S. 26. 1st Variety.

- 972 The same of a greenish grey colour and traversed by slips of Quartz; from the same place.
- 973 A long, very regular, similar distinct concretion, on one surface of which, Mica and Martial Pyrites occur superficially; from the same place.
- 974 The same Fossil, with very much superficial Martial Pyrites and much intermixed Felspar; from the same place.
- 975 Light smoke grey very firm Hornslate, with adhering Argillite; from the same place.
- 976 A very compact similar Hornslate which exhibits almost a coarse-grained uneven fracture; from the same place.
- 977 Greenish grey very fine beautiful Novaculite, which presents itself in the foregoing Hornslate.

Leske, S. 27. 2d Variety.

- 978 Dark greenish grey Argillite which very much approaches the basis of the Schistose Porphyry and is also found therein; from the same place.
- 979 Schistose Porphyry with much Felspar, and of small granular distinct concretions; from the same place.
- 980 Schistose Porphyry strongly inclining to greenish, which slightly resembles Trap.
- 981 Decomposed very Ironshot Argillite; which also occurs in the former variety.
- 982 A sort of pyramidal fragment of this Fossil.
- 983 Coarse-grained Granite which is said to occur in layers between the Schistose Porphyry, in the Mountain at Tiefenthal.
- 984 Coarse and small-grained Granite wherein beautiful milk white Felspar occurs; from Hasslicht.

Leske, S. 32.

- 985 A similar Granite, in which however the Felspar is somewhat more decomposed; from the same place.
- 986 Small-grained Granite extremely rich in Felspar; from the same place.
- 987 Very fine-grained Granite; from the other side of this Mountain.
- 988 A boulder of genuine Trap, wherein the Felspar is uncommonly distinct, but the Hornblende and Quartz are very closely united together, therefore the Quartz is not easily discriminated, with finely disseminated Martial Pyrites also here and there; from the Teufelsberg.

Leske, S. 40.

- 989 A similar piece, but in which the Hornblende in some places is large-grained.
- 990 A pebble of Amethyst, which graduates into common Quartz at the margin; from this vicinage.

Leske, S. 63. 1.

- 991 Clove brown Rock Crystal enveloped with a Quartz rind; from the same place.

Leske, S. 63. 2.

- 992 A pebble of beautiful greyish white Rock Crystal; from the same place.

Leske, S. 63. 3.

- 993 A bluish grey pebble of siliceous Schist; from the same place.

Leske, S. 64. 4. Schistose Hornstone.

- 994 A ditto, in which the ancient prismatic distinct concretion is still observable, with the edges yet moderately sharp; from the same place.
- 995 Smoke grey common siliceous Schist, as a pebble, traversed by numerous rifts in which it is Ironshot; from the same place.
- 996 A pebble of Basanite, intersected by two moderately broad Quartz veins.

3 Y 2

997 A

- 997 A large Flint pebble of a smoke grey colour; from the same place.

Leske, S. 64. 5.

- 998 Small greyish white Rock Crystal pebbles, which superficially, in some places, reflect Iridescent colours; from the same place.

- 999 Yellowish grey and milk white Calcedony pebbles; from the same place.

Leske, S. 64. 6.

- 1000 A dark yellowish grey, passing into clove brown, Calcedony pebble; from the same place.

- 1001 An honey yellow Calcedony pebble; from the same place.

Leske, S. 65. 2.

- 1002 A reddish brown Calcedony pebble; from the same place.

Leske, S. 65. 1.

- 1003 The same of a dark yellowish brown colour; from the same place.

- 1004 A singular Calcedony pebble, in which the Calcedony where it is broken, exhibits an irregular surface, with very numerous small, between the larger, inlaying depressions; from the same place.

- 1005 A pebble of common Quartz with inlaying reniform brown Calcedony; from the same place.

- 1006 A pebble of common somewhat drusy Quartz; from the same place.

- 1007 A pebble of blood red Jasper traversed by brown veins of the same; from the same place.

Leske, S. 65. 3.

- 1008 A brownish red Jasper pebble; from the same place.

- 1009 A ditto, of a reddish brown colour; from the same place.

1010 A

- 1010 A small pebble of dark reddish brown Hornstone which comes very near to Jasper; from the same place.
- 1011 A similar pebble traversed by very numerous delicate rifts; from the same place.
- 1012 A pebble of Hornstone, common Quartz and Jasper, wherein the Quartz predominates; from the same place.
- 1013 A similar pebble wherein the principal constituent part is Jasper; from the same place.
- 1014 A pebble of Hornstone, Flint, Jasper and much Amethyst; from the same place.
- 1015 A yellowish grey Hornstone which bears an extraordinary resemblance to grey Wacke, and to which, on one side, crystallized Quartz adheres; from the same place.

Leske, S. 67. 1.

- 1016 A pebble of a large-grained Quartz Breccia, whose cement is of a liver brown colour and very Iron-shot; from the same place.

Leske, S. 67. 3.

- 1017 A piece of a Basalt boulder which from its irregular thick flaty fracture approaches to Hornstone, with Hornblende Crystals sparingly intermixed; from the same place.
- 1018 A similar Basalt boulder, only more decayed, Iron-shot in the rifts, and internally of a darker colour than the foregoing; from the same place.

b. b. Muskau.

- 1019 Yellowish brown Aluminous earth.

Leske, S. 79.

- 1020 Massive Mountain butter amid crumbling fragments of Aluminous earth.

Leske, S. 84.

1021 Bituminous

- 1021 Bituminous Wood, which internally is very jet-like.

Leske, S. 76.

- 1022 Prismatic, but rather indistinctly crystallized, broad foliated Gypsum, of a smoke grey colour.

Leske, S. 80.

- 1023 A solitary large Crystal of broad foliated Gypsum which is quite transparent towards the edges; from the same place.

- 1024 More stellularly aggregated, similar broad foliated Gypsum Crystals; from the same place.

- 1025 The same, where five form a perfect Star, but one is inserted somewhat obliquely into the central point.

- 1026 A quantity of those, in which however the extremities seem for the most part broken off.

- 1027 Broad foliated Gypsum, crystallized in very small, similar prisms, which lay upon the larger ones.

- 1028 Bright yellowish grey Potter's Clay, on one side of which are tolerably large Quartz grains.

Leske, S. 141. a.

- 1029 Yellowish grey Potter's Clay, somewhat Ironshot in the rifts.

Leske, S. 141. b.

- 1030 The foregoing variety, but less Ironshot and of a brighter colour.

- 1031 Moderately dark yellowish grey Potter's Clay, with an inlaying piece of petrified Wood, as it seems.

- 1032 Disseminated blue Martial Earth in a brown Loam,

Leske, S. 142. 2.

- 1033 The same, but with still very visible vegetable roots.

- 1034 A yellowish grey Flint Pebble; from the mountain opposite Braunsdorf, as are all the following specimens to No. 1041.

- 1035 Partly yellowish grey, partly yellowish brown Flint, with

with the remarkable Belemnitic petrification which is depicted in the 2d plate of Leske's Tour.

- 1036 A Granite boulder, wherein the Felspar is of a yellowish grey colour and nearly transparent, with little Quartz and inlaying black Mica in stripes.

Leske, S. 143. a.

- 1037 Another Granite boulder, with an extraordinary quantity of partly dark carnation, partly dark brownish red Felspar, very little Mica, Hornblende and Quartz,

Leske, S. 144. β .

- 1038 Another Granite boulder with much more black Mica, but the aggregate is somewhat indistinct and flaty, therefore the whole approaches to Gneiss.

- 1039 A piece of a Trap boulder in which a moderate quantity of Felspar occurs, which has this peculiarity, that it is not so oblong grained and separate as in the common varieties of this Fossil.

- 1040 An unbroken Trap boulder, in which there seems to be an extraordinary quantity of Hornblende, with decayed Felspar.

- 1041 A piece of a boulder of Schistose Porphyry which seems pretty much decayed, thence the basis is nearly intermediate between Argillite and Siliceous Schistus.

Leske, S. 144. b.

- 1042 Dark clove brown lowland Argillaceous Iron Ore; from Zschächeln.

Leske, S. 127.

- 1043 The same, of a yellowish brown colour; from Lausniz.

- 1044 The same mineral, with pretty numerous inlaying coarse Quartz grains; from the same place.

- 1045 Dark brown, tolerably pure, lowland Argillaceous Iron Ore; from Biskowiz.

1046 The

- 1046 The same, traversed by coarse Quartz fragments; from Collin.

Rem. Here it may be observed how the inlaid variously shaped Quartz grains, when they have fallen out, give to the whole an extraordinary cavernous appearance.

- 1047 The same, purer and of a somewhat darker colour; from the same place.
- 1048 A very good, dark clove brown, lowland Argillaceous Iron Ore; from Tribel.
- 1049 Dark brown lowland Argillaceous Iron Ore mixed with pretty numerous small Quartz grains; from Königswald.
- 1050 The same, mixed with fewer but coarser Quartz grains; from the same place.
- 1051 Amorphous Argillaceous Iron Ore; from Steiniz.
- 1052 The same, coated with much reddish brown Iron Ochre; from the same place.
- 1053 The same, covered with very numerous small Quartz grains; from Bachlau.
- 1054 A piece of lowland Argillaceous Iron Ore; from Köyne beside Forsta.
- 1055 Greyish black Basalt which possesses a very great degree of compactness; from Gutte.

Rem. All these lowland Argillaceous Iron Ores are smelted at the Iron Works at Keule, for which, Limestone from Kammersdorf, and the Basalt just mentioned are employed as fluxes.

c. c. Rothenburg.

- 1056 Liver brown Aluminous Earth, or rather Aluminous Bituminous Wood; from Lodenau.

Leske, S. 150.

- 1057 A very poor lowland Argillaceous Iron Ore, in which also the blue Martial Earth occurs; from Steinbach.

Leske, S. 151.

- 1058 A very Ironshot brown indurated Clay, coated with Iron Ochre; from Obertormersdorf.

Leske, S. 154. 3.

- 1059 A very good yellowish Pipe Clay; from the same place.

Leske, S. 154. 4.

- 1060 Yellowish grey Clay, with numerous inlaying nests of Martial Pyrites; from the same place.

Leske, S. 154. 6.

- 1061 Isabella yellow very Ironshot and somewhat sandy indurated Clay; from the same place.

Leske, S. 154. 2.

- 1062 A reddish brown Ironshot somewhat Aluminous Clay; from the same place.

Leske, S. 184.

d. d. Stengersdorf.

α. Ullersdorf.

- 1063 A boulder of a yet undetermined aggregate Stone, which consists of Quartz, much Felspar, Mica and Hornblende granularly accumulated, of which the latter is coarse-grained, the others small and fine-grained; from Ullersdorf.

Leske, S. 184.

Rem. It is probably a variety of Sienite.

β. Niesky.

- 1064 A coarse-grained Granite boulder, wherein is contained
3 Z

tained an extraordinary quantity of Felspar, the Mica also in it graduates into Hornblende.

Leske, S. 183.

- 1065 A part of a Granite boulder, wherein principally red, but also white Felspar in quantity, further an intermediate Fossil between Hornblende and Mica, and lastly very little Quartz occur, in an half granular, half slaty compound.
- 1066 A third Granite boulder, in which the Quartz and Felspar have an equal share, and both are coarse-grained.
- 1067 A piece of a nearly quite thin slaty Gneiss boulder, wherein the Mica is mostly of a Silvery white colour.
- 1068 Very fine slaty Gneiss with black Mica and disseminated Garnets.
- 1069 A part of a boulder of Hornblende Slate.
- 1070 A Trap boulder, wherein tho' the Hornblende and Quartz are intimately united, yet both are still distinctly to be discriminated, in which also the Quartz on the whole predominates, but the Felspar lays therein in separate, sometimes coarse grains, and wherein besides here and there Mica and Garnets occur, a proof of the transition of this Fossil into Gneiss, which is so much the more evident as the whole turns out a little slaty.
- 1071 A large piece of a Trap boulder unusually rich in Quartz.
- 1072 A boulder of small-grained Trap, wherein the Hornblende on the contrary predominates.
- 1073 A very remarkable Trap boulder, in which both varieties occur together and graduate into one another, of which the one is very compact and with scarcely discernible particles, the other on the contrary small-grained and with distinct concretions.
- 1074 A boulder of very coarse-grained Trap, which however on one side verges on the small-grained.
- 1075 A Siliceous Schistus boulder, but in which an extraordinary quantity of, in some parts drusy, Quartz occurs.
- 1076 A boulder of very beautiful Porphyry of a reddish basis,

- basis, with very much inlaying, in some parts decomposed, Felspar and Hornblende.
- 1077 A similar Porphyry boulder, with much overstrewn Quartz and Felspar, but very few Hornblende grains.
- 1078 Porphyry with a brownish red basis, moderately coarse-grained Felspar, and very much coarse and fine-grained inlaying Quartz.
- 1079 A remarkable variety of Porphyry, which is uncommonly rich in Quartz, and therefore forms the transition into Sandstone.
- 1080 The same, but very fine-grained and therefore more compact.
- 1081 A boulder of reddish very fine-grained Quartz Hornstone.
- 1082 A boulder of greyish white Ironshot Quartz.
- 1083 A yellowish grey and brown Flint boulder.
- 1084 A very remarkable Fungite in Quartz Sandstone.

γ. *Lower Rengersdorf.*

- 1085 Dark grey Argillite; from that place.
- 1086 Ironshot drusy Quartz, part of a boulder; from Schumansberg.
- 1087 A part of a Hornblende Slate boulder, which is very Quartz; on the road to the Great Dyke.

Leske, S. 203.

- 1088 A Porphyry boulder uncommonly rich in Felspar; from the same place.
- 1089 Lowland Argillaceous Iron Ore which possesses a slight lustre, and therefore seems not to be very rich; from the eastern side of the Great Dyke.

δ. *Viehwegsberg.*

- 1090 A grey Porphyry with a tolerable quantity of inlaying small-grained Felspar and Quartz, and also with delicate greenish streaks.
- 1091 The same Fossil, with distinct, abundant, traversing, greenish grey veins.

- 1092 The same, wherein the latter are extremely abundant, and the Felspar can with difficulty any longer be discriminated from the basis.
- 1093 A piece of Porphyry which is very Quartzzy, and wherein the Felspar is a little decomposed.
- 1094 A more strongly decomposed Porphyry, with adhering drusy Quartz.
- 1095 Porphyry whose basis is yet more decomposed, with much intermixed drusy Quartz.
- 1096 A very decomposed greenish grey Porphyry, both as to its basis and the Felspar.
- 1097 A Porphyry, wherein all this takes place in a still higher degree.

ε. *Oberneuendorf.*

Leske, S. 211.

- 1098 Greyish white, pale carnation red spotted, small-grained Limestone, which is very Ironshot in the rifts; from an old abandoned Quarry.
- 1099 The same, but in which the distinct concretions are somewhat smaller.
- 1100 Yellowish grey similar Limestone, with adhering carnation red ditto and a little intermixed Argillite; from the same Quarry.
- 1101 Smoke grey reddish brown spotted granular Limestone, with intermixed Calcareous Spar; from the great Neuendorf Quarry.
- 1102 The same of a darker colour and much more fine-grained, with adhering Argillite; from the same place.
- 1103 Fine-grained similar Limestone, in reddish Argillitic layers, with traversing delicate Calcareous Spar slips; from the same place.
- 1104 A somewhat thick flaty Argillite, penetrated with a considerable quantity of Calcareous particles.
- 1105 Yellowish grey Hornstone which approaches very nearly to Calcedony, however it is somewhat Ironshot and occurs in Quartz; from the Hill there.
- 1106 Cellular very Ironshot minute splintery Quartz; from the same place.

ζ. *Ludwigsdorf.*

§. *Ludwigsdorf.*

Leske, S. 213.

- 1107 Fine-grained Limestone, with adhering and intermixed reddish and greenish grey Argillite; from the New Quarry at that place.

¶. *Hemmersdorf.*

Leske, S. 214.

- 1108 Pale smoke grey granular Limestone, with a little intermixed Argillite.
- 1109 The same of a darker colour, with adhering very Calcareous reddish brown Argillite.
- 1110 The same, with a traversing slip of pale carnation red Calcareous Spar.
- 1111 A very compact Trap boulder, wherein here and there, in the manner of the Russian Traps, particles of Calcareous Spar occur, the whole is also tolerably fine-grained, so that the Felspar is not easily discernible; out of a Quarry which lays nearer to Hemmersdorf than the Limestone quarry.
- 1112 Yellowish grey drusy Quartz which approaches to Hornstone; out of a Garden at Hemmersdorf.
- 1113 The same, still more rifted and Ironshot; from the same place.
- 1114 Pale yellowish grey Petrosiliceous Quartz; from Steinberg.

Leske, S. 215.

- 1115 The same of a greyish white colour; from the same place.
- 1116 A similar variety of Quartz, in which may be observed tetrahædral columnar distinct concretions, as in Basalt and similar Rocks; from the same place.
- 1117 Quartz whose fine splintery fracture approaches so much to the even, that it verges on Calcedony; from the same place.

1118 Moderately

- 1118 Moderately compact, rather indistinct Trap, with traversing slips of Calcareous Spar; from the Hill beside Hemmersdorf.
- 1119 The same, very fine-grained and of a somewhat lighter colour, with a casual admixture of Mica; from the same place.
- 1120 A boulder of carnation red very Quartzzy Sandstone; from the same place.
- 1121 A similar Sandstone extremely fine-grained of a yellowish grey colour, which actually graduates into common Quartz.

9. *Ebersbach.*

Leske, S. 211.

- 1122 Reddish brown and yellowish grey spotted granular Limestone, with adhering Argillite; from the Old Quarry.
- 1123 The same, very fine-grained and of a darker colour, in Argillite; from the same place.
- 1124 Dark greenish grey Schistose Porphyry, with very delicate intermixed Felspar; from the Valley between Ebersbach and Kunnersdorf.
- 1125 The same Fossil, coarse splintery, and with Iron-shot spots here and there.
- 1126 Somewhat lighter Schistose Porphyry; with very fine inlaying Felspar and abundantly intermingled Hornblende, which however is indistinct.
- 1127 The same of a brighter colour, and more Felspar, but less Hornblende.
- 1128 The same still more compact, without Hornblende, but in stead of it, here and there with disseminated Silvery white Mica dots.
- 1129 Rather light mountain green softer Schistose Porphyry, penetrated with a moderate quantity of Hornblende; from the east side of the rivulet beside the Quarry.
- 1130 Very compact Schistose Porphyry, wherein beside the Felspar, a very little Mica is observable; from the west side of the rivulet below the Village.
- 1131 The same variety of the Schistose Porphyry, wherein however the Felspar is rather distinct; near the foregoing

foregoing place, just where a small valley stretches to the Eastward.

- 1132 Similar very compact Schistose Porphyry; from the East side of the small valley towards Dammersdorf.
- 1133 The same of a somewhat lighter colour, with much nearly Silvery white Felspar; from the small valley at Kunnersdorf.
- 1134 A genuine intermediate Fossil between Schistose Porphyry and a very fine Novaculite; exactly midway between Ebersbach and Kunnersdorf.
- 1135 This same Stone, with a fracture however which passes from the fine splintery into the imperfectly conchoidal; from the same place.

n. Kunnersdorf.

Leske, S. 210.

- 1136 Crystallized Calcareous Spar in large hexhædral Pyramids with drusy lateral planes, and coated with Iron Ochre.
- 1137 The same in somewhat smaller Crystals, in which it is very evident that these Pyramids are composed of accumulated Rhombs, which makes the lateral planes drusy.
- 1138 The same crystallization with the apices broken off.
- 1139 Calcareous Spar crystallized in small double trihædral Pyramids accumulated in rows, upon Massive very Ironshot ditto.
- 1140 A groupe of hexhædral prismatic, acuminate in the usual manner, Calcareous Spar Crystals, upon a Massive Calcareous Spar rendered impure by Argillite.
- 1141 The same acuminate by six planes, but extremely short, in Massive white Calcareous Spar, in which the rhomboidal fragments and large granular distinct concretions are very distinct.
- 1142 Massive large-grained Calcareous Spar, in some parts crystallized in the clefts.

1143 Calcareous

- 1143 Calcareous Spar crystallized in very small Rhombs, upon Massive Ironshot ditto.
- 1144 Small-grained smoke grey Limestone, traversed by Argillite in layers, (called Bankstone).
- 1145 A compound of very much Calcareous Spar and granular Limestone with very Ironshot Argillite, therefore of an indifferent kind.
- 1146 Very beautiful fine flaty smoke grey Argillite; from the Gold Mine, as are also the following specimens to No. 1157.

Leske, S. 227.

- 1147 The same of a darker colour and somewhat superior hardness, with superficial drusy Martial Pyrites.
- 1148 The same of a still somewhat darker colour.
- 1149 Yellowish, but here and there blackish grey Siliceous Schistus, partly Ironshot, and partly traversed with white slips.
- 1150 Very evident, rather bluish grey, thick, but perfectly plain flaty Siliceous Schistus.
- 1151 Very thick and somewhat irregularly flaty Siliceous Schistus, in some parts, of the foregoing variety, in others actually Basanite.
- 1152 The same species of Fossil, but entirely of the last mentioned variety, with traversing slips of Quartz.
- 1153 A very beautiful smoke grey Siliceous Schistus, imperfectly conchoidal in the single flates.
- 1154 The same Fossil, only very Ironshot in the rifts, and of a fine splintery fracture, therefore passing into Hornstone.
- 1155 A remarkable variety of siliceous Schistus, which resembles common Quartz, evidently part of a boulder.
- 1156 The same Fossil, possessing the same peculiarity, but in a superior degree.
- 1157 A piece of siliceous Schistus with an adhering small Quartz groupe.

λ. *Geiersberg.*

Leske, S. 205.

- 1158 A Poryhyry boulder with very much large-grained red Felspar.
- 1159 A Sienite boulder wherein both, much Mica and Hornblende occur.
- 1160 Greyish white granular Limestone, with adhering grey ditto; from the North East side of the Mountain.

Leske, S. 207. a.

- 1161 From the smoke grey somewhat inclining to bluish, small-grained Limestone, with intermixed reddish brown very argilliferous ditto.

Leske, S. 207. c.

- 1162 A Limestone mixed with an extraordinary quantity of Ironshot Argillite, therefore of a very indifferent kind.
- 1163 Small-grained grey Limestone with traversing Calcareous Spar veins and smoke grey Argillite.
- 1164 Fine-grained grey Limestone, with adhering greenish grey Argillite.
- 1165 Bright and greyish white Calcareous Spar, in grey granular Limestone.
- 1166 The same, with dots of Martial Pyrites and adhering Argillite.
- 1167 Yellowish white large-grained Calcareous Spar.
- 1168 Pale carnation red coarse-grained Calcareous Spar, very much mixed with Argillite.
- 1169 Small-grained Calcareous Spar of an intermediate colour between pale carnation and rose red, with much adhering Ironshot Clay.
- 1170 Somewhat darker red Calcareous Spar, with an adhering compound of compact Limestone and Argillite.
- 1171 Massive and coarsely disseminated Calcareous Spar, in a granular Limestone mixed with Argillite.

4 A

1172 Calcareous

- 1172 Calcareous Spar crystallized in very small low Prisms acuminated in the usual manner, upon Ironshot Argillite.

Leske, S. 208. No. 1.

- 1173 A groupe of double trihædral pyramidal Calcareous Spar Crystals which in some parts are variegatedly tarnished, upon a compound of granular Limestone and adhering Argillite.

Leske, S. 208. No. 2.

- 1174 A groupe of somewhat smaller similar Crystals, upon and in Ironshot Argillite.

- 1175 The same, in some parts still smaller, so that the Crystals are minute, in some parts also implanted upon the edges, on Ironshot Argilliferous and granular Limestone.

- 1176 A similar groupe upon Calcareous Spar with adhering Argillite.

- 1177 Calcareous Spar crystallized in acute small double hexhædral Pyramids, upon small-grained Limestone which seems to pass into the compact.

- 1178 Small-grained Limestone which is mixed with Hornstone, and in some parts in such a manner that it seems to graduate into the compact; from the South East continuation of the Mountain, as are all the following specimens to No. 1187.

- 1179 A granular Limestone mixed with very much Hornstone, with a little adhering Argillite.

- 1180 Greenish grey Argillite.

- 1181 Reddish grey Argillite which is tolerably fine flaty.

- 1182 The same, somewhat darker und curved flaty.

- 1183 A little darker and thick flaty similar Argillite.

- 1184 Smoke grey Argillite.

- 1185 A green Argillite very much spotted with compact red Ironstone.

- 1186 The same, cellular and also Ironshot.

- 1187 Reddish brown, yellowish white and greenish spotted Argillite.

- 1188 Decomposed Porphyry with overlaying yellowish grey and reddish Argillite; from the Western side of the Mountain.

1189 Greenish

- 1189 Greenish grey, reddish spotted Argillite; from the same place.
- 1190 The same, with inlaid pieces of Quartz; from the same place.
- 1191 Dark reddish brown, yellowish grey spotted Argillite; from the same place.
- 1192 A Breccia composed of Basanite and common Hornstone in an argillaceous cement; from the middle of the Mountain, as are all the following specimens to No. 1216.

Leske, S. 224.

- 1193 Smoke grey common siliceous Schistus, with a traversing slip of white Quartz.
- 1194 A compound of Quartz and bright yellowish grey Hornstone, in some parts rather Ironshot.

Leske, S. 225.

- 1195 A piece of a similar Spheroid mixed with drusy Ironshot Quartz.
- 1196 Drusy Quartz mixed here and there with siliceous Schistus.
- 1197 Ironshot cellular and drusy Quartz.
- 1198 A compound of Hornstone and Massive Quartz, with inlaying crystallized ditto.
- 1199 Quartz crystallized in small low hexhædral Prisms with the usual acumination, upon Argillite.
- 1200 Compact brown Ironstone with impressions, and mixed with very numerous Quartz Crystals.
- 1201 Hexhædral prismatic Quartz Crystals acuminated as usual, upon compact brown Ironstone.
- 1202 Quartz of columnar distinct concretions with pyramidal acuminations on the surface, whereby the transition into the regular external figure is effected.
- 1203 A groupe of low hexhædral Ironshot Quartz Crystals, upon Ironshot Massive Quartz.
- 1204 Similar, longer Quartz Crystals in a groupe, with adhering Argillite.
- 1205 The same, coated with red Iron Ochre, upon Massive Quartz.

4 A 2

1206 Slender

- 1206 Slender acicular similar Quartz Crystals upon Massive Quartz.
- 1207 A Quartz groupe with overlaying compact brown Ironstone, forming a moderately thick overcast.
- 1208 Minute botryoidal compact brown Ironstone, upon drusy Quartz.
- 1209 Moderately large botryoidal compact brown Ironstone, in some parts decayed.
- 1210 The same, upon drusy Quartz, in such a manner that it begins to form a secondary crystallization.
- 1211 Amorphous compact brown Ironstone, upon Quartz.
- 1212 Arborescent compact brown Ironstone in Quartz.
- 1213 Cellular compact brown Ironstone in Quartz.
- 1214 Brown Hæmatites in Ironshot Quartz.
- 1215 Ditto variegatedly tarnished, in the same sort of stone.
- 1216 Extremely fine-grained nearly blackish grey Limestone, with very numerous traversing Calcareous Spar veins; from the Eastern side.
- 1217 The same but still finer, so that it is only through a magnifying glass that the fine granular texture can be observed, with traversing Calcareous Spar veins, and an adhering argillaceous Stone.
- 1218 The same, traversed with very numerous Calcareous Spar veins, and also with some adhering small-grained Limestone.
- 1219 A very compact Porphyry of a greenish grey colour, in which beside the Felspar, Mica also occurs; from the North West side of the Mountain, as are all the following specimens to No. 1222.

Leske, S. 224. No. 1.

- 1220 Porphyry of a brighter colour, mostly with ochre yellow Felspar and tolerably distinct Mica.

Leske, S. 224. 2.

- 1221 The same Fossil, only the basis is more compact and not so decayed as the foregoing.
- 1222 Quite decomposed Porphyry, wherein the basis and Felspar are of a greyish white colour.
- 1223 Blackish grey Basalt, somewhat decayed at the edges,

edges, with very little inlaying Chrysolite, and exteriorly, with superficial Mica, part of a boulder found between Oberrengersdorf and the Berg-lehn.

- 1224 A similar, somewhat coarse splintery piece; from the same place.
- 1225 Yellowish grey filiceous Schistus which passes into Hornstone, part of a boulder; from the Oberrengersdorf confines near to the Road.

μ. Oberrengersdorf.

- 1226 A very beautiful blackish grey Argillite; from the North side.
- 1227 A very argilliferous filiceous Schistus, which graduates into Hornstone; from the same place.
- 1228 Pale smoke grey filiceous Schistus which comes very near to Quartz.
- 1229 Fine splintery Basanite whose fracture however graduates into the conchoidal; from Burschensberg.
- 1230 A compound of this Fossil and very compact Trap, wherein however the Quartz may still be tolerably well observed; from the same place.
- 1231 The same, wherein also the particles of Felspar are distinct; from the same place.
- 1232 A very compact variety of Trap, which certainly comes somewhat near to Porphyry, but yet is visibly distinguishable from it, its genuineness is also demonstrated by the tetrahædral trapezoidal appearance; from the same place.
- 1233 An aggregate Stone consisting of a reddish brown Argillaceous basis, with inlaying small globules of red Ironshot Earth, which in some parts have fallen out, so that the whole forms an Amydaloid which is very like to Porphyry; from the same place.
- 1234 The same Fossil, wherein however the basis and contained parts are decomposed, therefore the whole is more indistinct, with a traversing slip of Quartz; from the same place.

ν. Heideberg

v. *Heideberg.*

Leske, S. 230.

- 1235 Yellowish white, here and there a little ochre yellow spotted Quartz.
- 1236 Greyish white drusy Quartz with a little adhering black Ore of Manganese.
- 1237 Black Manganefian Ore forming a tolerably thick overcast upon Quartz.
- 1238 A piece of quite massive black Manganefian Ore.
- 1239 The same Mineral minutely botryoidal, in Quartz.
- 1240 Large botryoidal black Manganefian Ore, with a little adhering Quartz.
- 1241 Ditto, upon Quartz.
- 1242 Black Manganefian Ore with globular impressions, upon indurated Clay.
- 1243 The same with minute impressions in Ironshot Quartz.
- 1244 Blackish grey Manganefian Ore in Quartz, of fine granular distinct concretions, with a little white Lithomarga.
- 1245 Black Manganefian Ore upon indurated Lithomarga, from which may be observed an evident transition into yellowish brown Jasper, and which is mixed with a little Quartz.
- 1246 A very compact Schistose Porphyry of the variety which graduates into Trap; from the second head of the Heideberg.

Leske, S. 232.

- 1247 A compound of fine splintery Quartz which graduates into filiceous Schistus, of genuine filiceous Schistus and Hornstone; from the third head of the Heideberg.
- 1248 A compact fine Schistose Porphyry, entirely similar to the first; from the fourth head of the Heideberg.
- 1249 Extremely fine and compact similar Schistose Porphyry; from the same place.

1250 The

- 1250 The same Fossil with superficial black Manganefian Ore, and apparently with adhering Argillite; from the same place.
- 1251 Yellowish grey, and also greyish white Quartz, here and there with superficial red Manganefian Ore; from the Eastern foot of the Heideberg.
- 1252 Greenish grey Argillite Ironshot in the rifts; from the same place.

o. *Jenkendorf Road.*

- 1253 Greenish grey moderately soft and Ironshot Argillite.
- 1254 The same with very coarse-grained intermingled Quartz.

π. *Weise.*

- 1255 Yellowish grey Hornstone which is mixed with drusy Ironshot Quartz.
- 1256 A Transition from yellowish grey Hornstone into blackish grey filiceous Schistus.

Dubrau.

Leske, S. 233.

- 1257 A Quartz pebble with overlaying Moss.
- 1258 Greyish white Quartz; from the Frauenberg.
- 1259 The same, in many places very Ironshot; from the same place.
- 1260 Quartz of small and fine granular distinct concretions; from the same place.
- 1261 A four-sided rhomboidal Quartz fragment, with inlaying Quartz Crystals; from the same place.
- 1262 An entire groupe of hexhædral prismatic Quartz Crystals, upon fine-grained Massive Quartz; from the same place.
- 1263 Similar small prismatic Rock Crystals, upon Quartz; from the same place.

1264 A

- 1264 A greyish black Basalt boulder, with a little disseminated Chrysolite; from the foot of the Kirchberg.
- 1265 Very compact similar Basalt; from the part which baffets to the day, on the Kirchberg.
- 1266 A piece of Basalt with extraordinarily little Chrysolite, wherein on the other hand a Hornblende Crystal of middling size lays, which is very remarkable on this account, that one very evidently observes its conchoidal transverse fracture, on which account it is that this Fossil in small less distinct particles, is occasionally described as Lava Glass; from the same place.
- 1267 Yellowish grey fine splintery Quartz; from Dube-rau.
- 1268 The same, mixed with yellowish white and in some parts rather drusy; from the same place.
- 1269 The same, with quite finely disseminated Mica; from the same place.
- 1270 Yellowish grey Quartz, with much Mica disseminated; from Prisniz beside Sproiz.
- 1271 Bluish grey fine splintery Quartz, with traversing slips of yellowish white Quartz.
- 1272 A thin tabular fragment of the same, with a tolerably broad traversing Quartz slip; from the same place.
- 1273 From the greenish grey, passing into the yellowish grey, tolerably coarse splintery Quartz.
- 1274 Minute splintery yellowish grey Quartz; from Längenöls.

§. *Harte.*

- 1275 Coarse-grained Argillaceous Sandstone.
- 1276 The same, with a smaller quantity of cement in proportion to the Quartz.
- 1277 The same Fossil, but in which scarcely any thing Argillaceous can longer be observed.

¶. *Silberberg.*

σ. *Silberberg.*

Leske, S. 240.

- 1278 Large grained Granite, wherein the Mica in some places is crystallized in hexhædral tables of middling size, all the remaining constituent parts are nearly in an equal proportion.
- 1279 Small-grained Granite which verges on the coarse-grained, with very little Mica and a little decomposed Felspar.
- 1280 A similar Granite, with still more decomposed Felspar.
- 1281 Very fine-grained Granite, with adhering coarse-grained.
- 1282 A narrow slip of extremely fine-grained Granite, which traverses coarse-grained.
- 1283 An extremely rare variety of Granite, wherein the Quartz occurs of a yellowish, strongly inclining to reddish brown colour, the Felspar on the contrary is Milk white, and the small quantity of Mica is black, therefore it comes near to Hornblende.

τ. *Schoorstein.*

Leske, S. 241.

- 1284 Coarse-grained Granite, in which the Felspar is half decomposed.
- 1285 Yellowish white Quartz, with delicate blackish veins; from the Quartz rock between Schoorstein and Hohenstein.
- 1286 Reddish white Quartz; from the same place.
- 1287 A Quartz boulder, on one side of a light rose red colour, and at the same time so rolled by water, that the whole has a greasy appearance, which in many places, as I have had an opportunity of observing, would be considered as the effect of fusion.
- 1288 Greyish white Quartz, mixed in some parts with reddish Clay.

v. *Königshain Mountains.*

Leske, S. 243.

- 1289 Fine-grained Granite upon coarse-grained ; from the eastern side of Schwalbenberg.

Rem. One may observe very distinctly in this specimen how this aggregate Stone occurs in layers.

- 1290 Coarse-grained Granite ; from a place much nearer to the summit of the Mountain.

- 1291 Decomposed similar Granite, with adhering large-grained ; from the same place.

- 1292 Similar coarse-grained Granite, with very little Mica ; from the same place.

- 1293 Rock Crystal crystallized in hexhædral prisms acuminate in the usual manner, penetrating and adhering to one another, upon Granite.

Leske, S. 244.

- 1294 Many isolated moderately dark clove brown Rock Crystals of middling size, with attached Felspar.

- 1295 The same, of very dark brownish black colour.

- 1296 A small groupe of yellowish white crystallized Rock Crystal, upon Massive Quartz.

- 1297 A remarkable very large-grained Granite, wherein much Mica and Magnetic Iron Ore occur.

Leske, S. 245.

- 1298 Fine-grained Granite, which is very Quartzzy ; from the Fürstenstein.

Leske, S. 246.

- 1299 Coarse-grained very Quartzzy Granite, upon entirely fine-grained ; from the Todtenstein.

Leske, S. 248.

1300 Similar,

- 1300 Similar, more decayed Granite; from the same place.
- 1301 A variety of Granite very rich in Felspar, part of a boulder from thence.
- 1302 Coarse-grained Granite with somewhat decayed Felspar, little Quartz, and very little Hornblende, with overlaying whitish and yellowish grey Steinflecht, (Lichen corallinus et Lacteus Linn.); from Hohenstein.
- 1303 Coarse-grained Granite, tolerably rich in Mica and Felspar; from Steinberg.

Leske, S. 252.

- 1304 Large-grained Granite, in some places with silvery white Mica and very coarse carnation red, and also yellowish white Felspar; from the same place.

Leske, S. 253.

- 1305 Small-grained Granite with much intermixed green Actynolite; from the same place.

Leske, S. 254.

- 1306 A similar Granite very rich in Quartz, wherein a little light olive green Actynolite occurs; from the same place.

- 1307 Decomposed Granite, with very much similar, both Massive and crystallized green Actynolite; from the same place.

- 1308 Some acicular Crystals of this Fossil in Granite; from the same place.

- 1309 Very Quartzzy Granite intimately mixed with this Fossil (the Actynolite); from the same place.

- 1310 The same, mixed in such a manner with extremely delicate green Actynolite, that the whole bears a slight resemblance to Trap; from the same place.

- 1311 Decomposed Granite, wherein green Actynolite disseminated and in veins occurs; from the same place.

- 1312 A Sienite boulder; from the same place.

- 1313 A similar variety of Sienite, which approaches to Granite; from Kampfenberg.

Leske, S. 255.

- 1314 A piece of Sienite, with a tolerable quantity of inlaying Hornblende; from the same place.
- 1315 The same, with very little Quartz; from the most western summit of it.
- 1316 A piece of a Sienite boulder which comes extraordinarily near to Trap; from the same place.
- 1317 The same, wherein the abundance of the Quartz is most striking; from the same place.
- 1318 A genuine Trap boulder with intermixed Martial Pyrites; from the same place.
- 1319 An extremely fine Trap very rich in Hornblende, with inlaying large-grained Copper and Martial Pyrites.

Rem. Thro' the magnifying glass, some extremely delicate particles of Felspar are discoverable in it,

- 1320 An uncommonly compact piece of Trap, part of a boulder, with minutely disseminated Martial Pyrites; from the same place.
- 1321 Small-grained Granite, in which both smoke grey, and also tho' but sparingly, yellowish grey Quartz occurs, which in some places become a little wine yellow; from Schulberg.

Leske, S. 254.

- 1322 Another variety of Granite, wherein the Felspar somewhat approaches to Steatites, and therefore is found of a greenish grey colour.
- 1323 Small-grained, in some parts coarse-grained, half decomposed Granite with little Mica; from Leibstein.

e. e. Schnepförtel.

- 1324 A very Ironshot compact Limestone; from Sorneudorf, as are the following to No. 1332.

Leske, S. 282. No. 1.

- 1325 The same, but still more porous and Ironshot, of an Ochre yellow colour.

1326 Fine

- 1326 Fine-grained yellowish Limestone whose fracture passes into the splintery.

Leske, S. 282. No. 2.

- 1327 Isabella yellow genuine Marle, with adhering somewhat drusy Calcareous Spar.

- 1328 Calcareous Spar crystallized in Rhombs with truncated angles and the edges rounded off, with Iron-shot Massive similar Marle.

- 1329 Solitary ditto, broken off, therefore more distinct.

- 1330 A similar Marle, here and there with very small Calcareous Spar Crystals of the same kind, in some places, united in Macles.

- 1331 The same, with many cavities lined with Crystals which are not yet quite filled up, and wherein the Calcareous had crystallized gradually, as perhaps is the case also in the Amydaloid.

- 1332 Extremely fine splintery dark yellowish grey, reddish shaded compact Limestone.

Leske, S. 282. No. 3.

- 1333 The same variety, of a somewhat darker colour and with a rather coarse splintery fracture.

- 1334 The same, with drusy spots, and very Ironshot.

- 1335 The same variety filled up with very small hexahedral pyramidal Calcareous Spar Crystals.

- 1336 This same variety, somewhat more compact, and with very numerous, small, inlaying petrifications, which perhaps are Tellinites.

- 1337 The same, in a piece with pyramidal Calcareous Spar, and the before-mentioned petrifications.

- 1338 A very beautiful fine-grained Sandstone; from Hochkirch.

Leske, S. 283.

- 1339 Somewhat more compact similar Sandstone, with isolated inlaying coarse grains.

- 1340 Rather porous coarse-grained Sandstone, as it occurs between Langenau and Rathwaffen.

Leske, S. 285.

1341 The

- 1341 The same with an inlaying Quartz pebble which exceeds an inch in size; from the same place.

Leske, S. 286.

- 1342 A Quartzzy Sandstone, in which the cement is not filled with an extraordinary quantity of grains.

- 1343 Imperfectly bituminous Wood, with inlaying Quartz grains.

Leske, S. 296.

- 1344 A moderately coarse-grained Sandstone; from the Gorliz heath.

Leske, S. 299.

- 1345 The same, with a more argillaceous cement; from the same place.

Rem. Both resemble a Quartz Breccia.

- 1346 The same Fossil, but small-grained; from the same place.

- 1347 The same, of a tolerably uniform grain and compact; from the same place.

- 1348 Genuine Quartzzy common Sandstone with coarse grains here and there; from the same place.

- 1349 Extremely fine-grained greyish white Sandstone; from the same place.

- 1350 The same, of a little lighter colour, with solitary inlaying coarse grains.

f. f. Webrau.

- 1351 Yellowish grey Pipe Clay; from Tiefenfurth.

Leske, S. 302.

- 1352 Quartzzy fine-grained Sandstone; from a quarry on the left hand of Tiefenfurth.

- 1353 Yellowish grey small-grained Sandstone; from the grey Wall.

Leske, S. 305.

- 1354 Yellowish

- 1354 Yellowish white, somewhat yellowish grey streaked Sandstone; from the same place.
- 1355 Yellowish grey coarse splintery Limestone, with adhering Marle; from the Wehrau Limestone Quarry.
- 1356 The same, more fine splintery, and argilliferous, of a somewhat lighter colour; from the same place.
- 1357 This same Fossil with a thick slaty fracture, therefore it constitutes the transition into Marle; from the same place, as are all the following to No. 1376.
- 1358 A large Pectinite with very broad streaks.
- Leske, S. 306.
- 1359 A similar, somewhat flatter Pectinite.
- 1360 The same, now visible only on one side, quite compressed on the other.
- 1361 A similar Pectinite of which only the posterior part is evident.
- 1362 A Pectinite with a double curvature, elevated towards the nib, and flatter towards the upper margin.
- 1363 A Pectinite with narrow subdivided streaks.
- 1364 Two similar, pretty delicately streaked Pectinites closely united.
- 1365 One of the same kind, in which extremely little of the extremity is now visible, so that it is probable that the original of this petrification belonged to the Oyster-genus.
- 1366 Rather small, moderately arched Pectinites.
- 1367 Still smaller, delicately streaked Pectinites.
- 1368 A Pectinite, the streaks of which particularly in the middle are rather unequal.
- 1369 A very flat compressed, almost rubbed smooth, Pectinite.
- 1370 A Mitilite in compact Limestone.
- Leske, S. 307.
- 1371 A large more indistinct Mitilite, in which there are not any streaks longer visible.
- 1372 Many smaller ditto, with the rough shell still in some places, and then streaked transversely.

1373 Yellowish

1373 Yellowish grey compact Limestone, with minute petrifications, which perhaps may be Tellinites, but here and there with coarsely disseminated Calcareous Spar.

1374 A beautiful pale wine yellow Calcareous Spar groupe of hexhædral pyramidal Crystals.

Leske, S. 306.

Rem. This Calcareous Spar is surrounded on four sides by compact Limestone which is marlaceous.

1375 A similar groupe of a brighter colour with adhering indurated Marle,

1376 A very beautiful groupe of similar greyish white Pyramids upon Massive Calcareous Spar.

1377 Yellowish grey fine splintery compact Limestone, Ironshot in the rifts; from the Wood beside Wehrau.

Leske, S. 304.

1378. The same perfectly marlaceous and extraordinarily Ironshot; from the same place.

1379 A porous similarly circumstanced Sandstone; from the same place,

1380 Drusy Limestone of this sort, which here and there graduates into sparry Iron Ore, but in other places is mixed with crystallized Calcareous Spar; from the same place.

1381 Yellowish grey Sandstone, which exhibits solitary coarse grains; from the Teufelsstub.

Leske, S. 309.

1382 Separate fragments of Stone Coal, which occurs in this Sandstone in veins; from the same place.

1383 Bituminous Wood, which is found between the Sandstone layers; from the same place.

1384 Moderately coarse-grained reddish and greyish Sandstone, from Gneifs.

Leske, S. 309.

1385 A similar rather drusy Sandstone, here and there somewhat Ironshot; from the Kreuzstein.

Leske, S. 310.

1386 Dark

- 1386 Dark yellowish grey argillaceous Ironstone; from the Lower Zeigelberg, from whence are also all the following to No. 1412.
- 1387 The same mixed with numerous Crystals of broad foliated Gypsum.
- 1388 The same of a brighter colour and mixed with extremely little brown Hæmatites.
- 1389 The same Fossil, in some parts of an ochre yellow colour.
- 1390 The same, very compact and blackish brown.
- 1391 Brownish red argillaceous Ironstone.
- 1392 Argillaceous Ironstone, with very distinct inlaying Tellinites which are streaked transversely, Gmelin's Linnæus, 13th Table, fig. 150.
- 1393 A piece of argillaceous Ironstone wherein these petrifications appear somewhat longer and broader and also more deeply fulcated.
- 1394 This same Fossil, partly with the same sort of petrifications, partly with mere impressions of them.
- 1395 The same, wherein also there seems to be petrified Miesmuscles, together with impressions of turrited Mondsnails.
- 1396 Turbinites, in bluish grey Loamslate.
- 1397 The same of a darker colour, in rather larger rounds and with vestiges of rough Muscle Shells.
- 1398 The same Loamslate with numerous impressions, as also with petrified Tell Muscles, in some parts of which the rough shells still exist.
- 1399 Blackish brown bituminous Slate which lays under the argillaceous Ironstone, and contains impressions of Tellinites.
- 1400 A prismatic macled broad foliated Gypsum Crystal.

Leske, S. 311.

- 1401 The same but much shorter, and stellularly aggregated.
- 1402 A pebble of yellowish grey Rock Crystal, in which the ancient prismatic form may still be observed on one side.
- 1403 The same of a clove brown colour, which is still unimpaired.

- 1404 A part of a pebble of honey yellow and pearl grey Calcedony.
- 1405 A piece of dark yellowish grey Calcedony with adhering milk white ditto.
- 1406 An Agate Pebble consisting of a large quantity of Calcedony, a little Amethyst and also Jasper.
- 1407 A Pebble of fortification Agate, wherein particularly much Calcedony of very thin and curved Lamellar distinct concretions occurs, with a very little Carnelian.
- 1408 A Pebble of fortification Agate which consists of smoke grey Quartz mixed with white traversing Hornstone veins and violet blue Amethyst.
- 1409 An Agate Pebble, of very much reddish brown Jasper and whitish Amethyst.
- 1410 The same, which is composed principally of blood red Jasper and yellowish grey Calcedony.
- 1411 A similar nodular Pebble of the same Jasper and yellowish grey common Quartz.
- 1412 A Pebble of brownish red Hornstone, Lavender blue Calcedony and yellowish grey Quartz.

g. g. Lauban.

- 1413 Very finegrained reddish white Sandstone; from Tumfelskeller, in Allersdorf before Lauban.

α. Nonnenberg.

- 1414 Blackish grey Basalt, with very small grains of Hornblende.

Leske, S. 332

- 1415 Basalt of coarse granular distinct concretions, in some parts also large-grained.

Leske, S. 333.

β. Steinberg.

- 1416 A Basaltic spheroid, from the North East side of the Mountain, the mass of which is tolerably compact.

1417 Very

- 1417 Very compact greyish black Basalt with coarse and small disseminated Hornblende and also small Chrysolite grains; from the highest part of the Mountain.

Rem. This Chrysolite it is which Leske (S. 335.) called Schörl grains, and took for Lavaglass.

- 1418 A similar piece, wherein the Chrysolite is coarse-grained and very evidently half decayed.
- 1419 Compact greyish black Basalt with solitary grains of Hornblende; from the present Quarry on the North East side near to the summit, from whence also are all the following specimens to No. 1426.
- 1420 A somewhat decayed small columnar Basalt fragment; from the same place.
- 1421 A piece of Basalt which on the surface is more decayed and much more argillaceous.
- 1422 A spherical piece of Basalt whose outer rind assumes a very bole-like appearance.
- 1423 A piece of Basalt, which is almost entirely, even internally, decayed to a greenish and yellowish grey unctuous Clay.
- 1424 A yellowish grey argillaceous Fossil originating from decayed Basalt by gradual alteration, which seems to be intermediate between Fuller's Earth and Bole.
- 1425 Fragments of greenish grey Bole.

Rem. This seems to be the last stage of the transformation of Basalt, it first passes into Wacke, then into indurated Clay, after that into Fuller's Earth and from this into Bole.

- 1426 The same of a liver brown colour, wherein all the characters of this Fossil are uncontrovertibly displayed.
- 1427 A very rifted Basalt, with partly coarse, partly small Chrysolite grains, which are half decayed; from the North West side.

Leske, S. 335.

- 1428 The same, with the inlaying reddish brown bole-like Fossil, which is very porous in some parts on account of the particles of this sort having fallen out,

and besides the whole seems very argillaceous and like Wacke.

- 1429 Blackish brown Basalt, with much inlaying decayed Chrysolite.
 1430 The same, with a red and white spotted inlaying bole-like Fossil.

Rem. Here the Basalt makes a transition into Amygdaloid.

- 1431 Unmixed fragments of this yellowish white bole-like Fossil.
 1432 A piece of decayed Basalt, with vestiges of Zeolite, one superficies is rather curved and probably the whole is part of a large Pillar.
 1433 A somewhat micaceous greenish grey Argillite; from the foot of the Steinberg.

Leske, S. 336.

- 1434 The same Fossil, but more solid and Ironshot in the rifts; from the same place.
 1435 Moderately thick flaty Argillite, which, though it is uniformly decomposed externally, yet interiorly evidently graduates into Siliceous Schistus.

γ. Lehmgrube.

Leske, S. 337, 338.

- 1436 A very Ironshot Sandstone.
 1437 Earthy Bituminous Wood which yet is not much mixed with Sand.
 1438 The same, with inlaying decayed Martial Pyrites.
 1439 Jet, with overlaying decayed Martial Pyrites.
 1440 Reddish grey Argillite.
 1441 The same, more Ironshot.
 1442 Pale greenish grey very fine flaty Argillite.
 1443 The same, which verges on Novaculite.
 1444 A piece of decomposed Granite.

1445 A

- 1445 A small Basalt fragment quite decomposed to greenish Clay.

Rem. The latter Fossils all lay in angular fragments in this place.

- 1446 Yellowish grey Flint, with overlaying Ochre yellow Ironshot indurated Clay.
 1447 Dark smoke grey Flint, as an overcast on a sort of indurated Lithomarga, which is scarce at all Calcareous.
 1448 A Petrification which represents the interior part of a Cochlite of the Trochite kind.
 1449 A Terebratulite become Limestone.
 1450 An Ostracite streaked longitudinally.
 1451 Two adhering Petrifications, of which the one is a Pectinite, but the other a transversely streaked Mitilite.
 1452 A petrified Venus Muscle.
 1453 A Trigonelle which exceeds an inch in size,
 1454 An abraded Fungite.

d. *Oberlichtenau,*

Leske, S. 321.

- 1455 A Turf traversed with very numerous roots.
 1456 The same, with a large quantity of overlaying blue Martial Earth.
 1457 Yellowish brown lowland Argillaceous Iron Ore, which is very much decomposed to Iron Ochre.
 1458 A piece of blackish grey Basalt, with much inlaying minute Hornblende grains and reddish brown Chrysolite, also on one side with genuine greyish white Quartz, which occurs coarsely disseminated in it; from a place between Lichtenau and Schreibersdorf.

Leske, S. 323.

- 1459 The same Fossil, but traversed with more Hornblende.
 1460 Very compact Basalt with coarsely disseminated very much decomposed Chrysolite.

1461 The

- 1461 The same, with much yellowish white indurated Lithomarga in the rifts.
- 1462 Greyish black Basalt of coarse granular distinct concretions.
- 1463 A tetrahædral columnar distinct Basalt concretion, which is about five inches long.
- 1464 A ditto but more rounded, and exteriorly decayed.
- 1465 A piece of a very large Pillar, in which, externally, planes meeting under well defined angles are observable, but the inner side of which presents a concave surface, the whole is lightly decomposed.
- 1466 A part of a decayed Basaltic Spheroid, in which the degrees of decomposition are perfectly observable.
- 1467 From the brownish red slightly inclining to lavender blue, blood red and yellowish sprinkled Lithomarga.
- 1468 A part of a fine-grained Granite boulder, wherein isolated large Quartz grains lay in spots.

Leske, S. 325, No. 2.

- 1469 A very coarse fibrous Gneiss boulder.

Leske, S. 325, No. 4.

- 1470 A part of a large Granite boulder very rich in Felspar, wherein green Actynolite traverses in slips.
- 1471 A pebble of smoke grey Quartz which graduates into Rock Crystal.

Rem. This is evidently out of a Granite mountain, as coarse-grained Mica and Felspar lay in one of its lateral planes.

- 1472 A part of a decomposed Porphyry boulder, which graduates into Sandstone.

Spizberg.

Leske, S. 326.

- 1473 Compact greyish black Basalt, with much interstrewed Hornblende and very little Chrysolite.
- 1474 Basalt of small granular distinct concretions, here and there

there with minutely disseminated greenish Chrysolite.

Leske, S. 328.

- 1475 A piece of Basalt in which more Hornblende occurs than in the former.
- 1476 Tolerably compact Basalt of small granular distinct concretions, which penetrate very deeply into the mass.
- 1477 The same with rather larger granular distinct concretions, very rich in Hornblende and with more obvious Chrysolite.
- 1478 Basalt, in some parts of coarse granular distinct concretions with much Chrysolite, and on the whole spotted with dark and bright grey.
- 1479 Very coarse-grained almost fibrous Granite; from the foot of the Spizberg.
- 1480 A similar piece, wherein however the Felspar is decayed.
- 1481 A piece of Granite, wherein the Mica is intermixed in a still more veiny manner.

2. Silberberg.

Leske, S. 329.

- 1482 A piece of Basalt, with little interspersed Chrysolite; from the east side of the Mountain.
- 1483 The same Fossil, with more abundant Chrysolite, and exteriorly decayed.

3. Oberlinde.

- 1484 Greenish grey somewhat Quartzzy Argillite.

Leske, S. 329.

- 1485 The same, of a darker colour and more micaceous; from Kirkberg.
- 1486 The same, very thick flaty, and is evidently part of a boulder; from the same place.

1487 Argillite

1487 Argillite with traversing slips of Ironshot Quartz; from the same place.

1488 A very beautiful solid Basalt, with finely disseminated Chrysolite and Hornblende; from Rauberg.

Leske, S. 330.

1489 The same, with minutely disseminated Chrysolite; from the same place.

1490 A piece of Basalt, wherein the Chrysolite on account of its reddish brown colour, approaches to Garnet; from the same place.

b. b. Marklissa.

1491 Coarse-grained Granite; from the foot of the mountain on the left hand of Oertmansdorf.

Leske, S. 348.

1492 A piece of Granite which comes very near to Gneifs.

1493 A large piece of a coarse-grained Granite, very Ironshot in the rifts.

1494 Yellowish grey Quartz upon and in Granite; from the same place.

Rem. It occurs in it in nests.

1495 A genuine transition from Granite into Gneifs.

1496 Decomposed Gneifs, wherein the Mica possesses an uncommon mountain green colour; from Zangenberg.

Leske, S. 350, 351.

1497 Thick flaty Gneifs, wherein the Felspar is entirely decomposed to Porcelain Clay; from the same place.

1498 Large-grained Quartz, which here lays nest-ways in the Gneifs just as before in the Granite; from the same place.

1499 An aggregate Stone which is perfectly intermediate between Granite and Gneifs; from the same place.

1500 Yellowish

- 1500 Yellowish brown Quartz, penetrated with brown micaceous Iron Ore in the rifts; from the foot of the Mountain.
- 1501 Pale greyish white, a little drusy, Quartz; from the same place.
- 1502 Dark grey and greyish white, very drusy Quartz; from the same place.
- 1503 Quartz, which in some places graduates into Hornstone, and is Ironshot in the rifts; from the Weissenstein.
- 1504 Yellowish grey Quartz, which actually graduates into Hornstone; from the same place.
- 1505 A piece of Basalt, with coarse-grained decayed Chrysolite; from Taubenberg.

Leske, S. 354.

- 1506 A in some places very porous Basalt, but here and there still with inlaying half decomposed Chrysolite; from Ohnesorgenssteinberg.

Leske, S. 355.

- 1507 The same, mixed with coarse-grained Chrysolite, and not in the least porous, on the contrary, very perceptibly Lamellar; from the same place.
- 1508 A very compact, extremely fine splintery Basalt, with minutely disseminated green Chrysolite; from Knapberg.

Leske, S. 356.

- 1509 A piece of Basalt with the same disseminated Fossil, very much decayed on one side; from the scattered pieces there.
- 1510 A piece of Gneiss which is very Ironshot and decomposed; from Tschochau.

Leske, S. 357.

i. i. Messersdorf.

- 1511 Granular Limestone mixed with some Calcareous Spar,

4 D

Spar, in Schistose Mica; from Queisufer beside Goldentrau.

Leske, S. 380.

1512 Minutely disseminated granular Limestone in this Schistose Mica.

1513 A piece of curved and thick flaty Schistose Mica; from the same place.

1514 An Amethyst pebble; from the same place.

1515 Tolerably fine flaty, in the single flakes splintery, greenish grey Schistose Mica; from the first Goldberg there.

Leske, S. 328. No. 1.

1516 The same, undulatingly curved flaty, with an adhering slip of Quartz; from the same place.

1517 Very fine flaty Schistose Mica, which approaches to Argillite, penetrated in the rifts with Mica.

Leske, S. 382. No. 2.

1518 A genuine greenish grey Argillite, with but very slight vestiges of Mica.

Leske, S. 382. No. 3.

1519 A greyish white Quartz, which must lay in nests in this Rockstone, though Leske does not notice it in his description.

1520 A piece of a singular variety of the Schistose Mica, in which granular Limestone supplies the place of Quartz.

Leske, S. 380.

1521 The same, wherein the Mica and Limestone are mixed in large grains, with adhering common Schistose Mica; from the same place.

1522 Greenish grey Basalt, which is traversed by quite faint slips of Quartz, that in some parts graduates into Hornstone; from Rietstein.

Leske, S. 383.

1523 A

- 1523 A piece of Basalt with much inlaying decayed Chrysolite, but coated in the rifts with Lithomarga; from the same place.
- 1524 Tolerably compact Basalt, mixed with numerous Hornblende grains and little Chrysolite; from the same place.
- 1525 Very fine splintery rather lighter Basalt, with half decayed Chrysolite disseminated, and exteriorly decomposed to yellowish brown Clay; from the same place.
- 1526 Greyish black Basalt, with coarsely disseminated Chrysolite which in some places is still undecayed; from the same place.
- 1527 A piece of Basalt of the sort which separates into thick Lamellæ; from the same place.
- 1528 Blackish grey Basalt, wherein the Chrysolite actually graduates into green garnet; from the same place.
- 1529 The same, still a little more compact, and in one place upon the garnet-like Fossil, with dark pinch-bee brown Mica; from the same place.
- 1530 A similar Basalt, wherein however much Hornblende is obviously intermixed; from the same place.
- 1531 Fragments of Basalt, in which the Chrysolite is immediately mixed with Quartz; from the same place.
- 1532 The same, with extremely delicate rifts filled with Hornstone and similar Quartz; from the same place.
- 1533 The same, in which the Chrysolite is become very Steatitical thro' decay; from the same place.
- 1534 A piece of Basalt with decayed Chrysolite, wherein it is quite evident that the pores originate from the decay of the latter; from the same place.
- 1535 Large-grained Granite, with superficial violet blue Fluor Spar; from the summit of Klingenberg, as are also the following specimens to No. 1542.

Leske, S. 386.

- 1536 The same, rather more compact, in which the Fluor Spar is actually disseminated and of a dark violet blue colour.
- 1537 Very coarse-grained Granite, with an extraordinary quantity of Ironshot Felspar.
- 1538 The same, resembling Gneiss.

- 1539 A piece of Granite which actually graduates into Gneifs.
- 1540 Thick flaty Gneifs, in which the three ingredients form distinct layers.
- 1541 Coarse separate Felspar grains in Granite.
- 1542 The same, with very decayed Felspar.
- 1543 A piece of Basalt, mixed with a tolerable quantity of Chrysolite, and with separate pores, which originate as usual from the decay of the Chrysolite; from the foot of this Mountain, as also the following specimens to No. 1546.
- 1544 A piece of Basalt with very much, in some parts coarse-grained, inlaying Chrysolite, which for the most part is somewhat decayed, and besides with Hornblende and separate Quartz grains.
- 1545 The same, of a tetrahædral columnar shape, and tarnished yellowish brown in the rifts.
- 1546 Greenish grey, slightly micaceous Sandstone.
- 1547 A decomposed Granite, graduating into Gneifs; from Schwerdterthal.

Leske, S. 387.

- 1548 A piece of Basalt with much inlaying Chrysolite; from the same place.
- 1549 A coarse-grained Granite, wherein is contained a tolerable quantity of the yellowish grey Quartz, which also occurs in the Basalt; from Schwartzenberg.

Leske, S. 389.

- 1550 A piece of Basalt, with a large-grained inlaying Fossil, which seems to be a variety of Granite with very little Mica, Quartz and Felspar are on the contrary in abundance, and the latter still retains its entire lustre.
- 1551 Coarse-grained Granite, wherein the Felspar constitutes the predominating ingredient; from Vogelsberg.

Leske, S. 391.

1552 A

- 1552 A piece of tolerably thin flaty Gneifs, abounding in Felspar; from the summit of Vogelsberg.
- 1553 A variety of the same, in which Quartz predominates, and containing but little Felspar; from the same place.
- 1554 A Quartz pebble, with inlaying decayed Felspar and Mica; from Neugersdorf.

Leske, S. 393.

- 1555 Similar very Ironshot drusy Quartz, wherein here and there small Rock Crystals occur; from the same place.
- 1556 Granite consisting of a singular compound of a large quantity of Quartz, with separate bluish rounded Quartz grains, little Felspar, and still less Silvery white Mica.

Leske, S. 393. 2.

- 1557 Granite resembling Gneifs, with inlaying milk white coarse-grained Felspar.
- 1558 Coarse-grained Granite, mixed with black Schörl in addition to its usual ingredients.

Leske, S. 393. 3.

- 1559 Decomposed Granite very rich in Felspar; from Stephansberg.

Leske, S. 393.

- 1560 Schistose Mica of a greenish grey colour; from the little Mountain, as are all to No. 1569.

Leske, S. 394.

- 1561 The same, with a solitary traversing thick slip of Quartz.
- 1562 A very thin flaty Schistose Mica.
- 1563 Still thin flaty Schistose Mica, with dendritic delineations.

1564 A

- 1564 A genuine transition from Schistose Mica into Argillite.
- 1565 Schistose Mica with tolerably coarse Garnet grains.
- 1566 The same, in which the crystalline figure of the Garnets is yet distinct.
- 1567 The same Fossil, with a traversing very thick Iron-shot slip of Quartz.
- 1568 A very much altered Schistose Mica, in which the layers of Mica are very thin in comparison to those of the Quartz.
- 1569 A singular variety of the Schistose Mica, wherein besides the usual Quartz which is strongly translucent, an extremely fine-grained ditto occurs, that is very crumbling and appears as if calcined, which if it bordered on Basalt would assuredly be considered as burned.
- 1570 Tolerably straight and thin flaty Schistose Mica; from Drechslersberg.
- 1571 The same, slightly curved flaty; from the same place.
- 1572 A piece of Schistose Mica, traversed by a slip, wherein specular Iron Ore, greenish grey Mica and Magnetic Iron Pyrites occur.

Leske, S. 394.

- 1573 Decomposed Granite, in which the Quartz is of a yellowish brown, in some parts actually of a wine yellow colour, and if it lay in Basalt, would certainly on account of its conchoidal fracture and great transparency, be called Lava Glass; from the Tafelfichte.

Leske, S. 402.

- 1574 The same, with more Mica and less decomposed Felspar.
- 1575 A similar Granite, with much fine-grained Quartz; from the same place.
- 1576 Quite white Granite, with very little Mica, which is mixed somewhat in veins.

E. K. Gorliz.

k. k. Gorliz:

a. *Mountains round Wansche.*

- 1577 A piece of Basalt, mixed partly with small-grained Chrysolite, partly with Felspar, which, as is very frequently the case in Granite, is decomposed to Lithomarga; from Wachberg beside Hartmansdorf.

Leske, S. 407.

- 1578 A piece of solid Basalt, with more Chrysolite, and without any vestiges of Felspar; also from the top of Wachberg.

- 1579 Coarse fibrous Gneiss; from the foot of Wachberg.

- 1580 A piece of Basalt which has very few pores, as well as but very little Chrysolite; from Obergerlachshain.

Leske, S. 405.

- 1581 A piece of compact Basalt, with fine-grained Chrysolite and Hornblende disseminated; from Queisersberg.

Leske, S. 405.

- 1582 Reddish grey Quartz; from Weissenstein.

Leske, S. 406.

- 1583 Fine splintery Hornstone, upon Quartz of columnar distinct concretions.

- 1584 Granite, with bluish grey Felspar, yellowish grey, in some parts wine yellow Quartz, and Pinchbeck brown Mica; from Burgberg beside Siedenberg.

Leske, S. 410.

- 1585 A piece of similar Granite, with a large traversing
flap

slip of Quartz; from the same place, as are also the following specimens to No. 1591.

Leske, S. 411.

- 1586 Large-grained Granite, with but little Mica.
- 1587 Granite resembling Gneiss, which is somewhat Iron-shot in the rifts.
- 1588 Curved fibrous Gneiss.
- 1589 The same, pretty much decayed.
- 1590 Small-grained Granite, pretty rich in Felspar and Mica.
- 1591 A tolerably bright greenish grey Basalt which very much resembles Trap, with coarsely disseminated reddish Chrysolite.
- 1592 Small-grained Granite; from Nieda.
- 1593 The same, with adhering small-grained Granite which comes very near to Gneiss; from the same place.
- 1594 The same, still more intimately mixed with the Gneiss-like Granite.
- 1595 Coarse flaty somewhat Ironshot Gneiss; from this district.
- 1596 Basalt of coarse granular distinct concretions, with much disseminated Chrysolite; from Wolfartsberg.

Leske, S. 414.

- 1597 A similar Basalt, wherein beside the Chrysolite a good deal of Hornblende is also disseminated.

Leske, S. 415.

- 1598 Basalt with coarsely disseminated Chrysolite and red Garnet; from the same place.
- 1599 A part of a Basalt boulder which is exteriorly pretty much decayed; from the same place.
- 1600 Several fragments of Basalt which very evidently graduates into Wacke, but in which the Chrysolite is not in the least decayed; from the same place.

Leske, S. 416.

- 1601 Solid Basalt, with much minutely disseminated Zeolite,

lite, and here and there with blunt angled small Quartz pebbles; from the same place.

- 1602 Very fine splintery Basalt, tarnished dark brown in the rifts; from Hammauer.

Leske, S. 416.

- 1603 The same, wherein the Chrysolite in some places is still quite undecomposed, but in others perfectly decayed; from the same place.

- 1604 Basalt of coarse granular distinct concretions, externally decayed; from the Quarry there.

- 1605 Coarse-grained Granite which graduates into Gneiss; from the same place.

Leske, S. 417, 418.

- 1606 Similar very Ironshot and decomposed Granite; from the same place.

- 1607 Small-grained Basalt with much inlaying Hornblende and Chrysolite, which on the whole has almost a flaty texture; from the Bureau Mountain.

Leske, S. 420.

- 1608 The same, with inlaying, in some places decomposed, Chrysolite, one grain of which has a complete trihedral figure.

- 1609 Yellowish brown, in some places inclining to greyish, Argillaceous Earth, which originates from the acknowledged, often recited decay, and comes very near to Fuller's Earth.

- 1610 Coarse-grained Basalt, with very much inlaying Garnet, and also with intermingled Hornblende; from the Quarry.

- 1611 Dark brownish red Ironshot indurated Clay; from the eastern continuation of the Mountain.

Leske, S. 421.

- 1612 Yellowish white indurated Lithomarga; from a hill between Wansche and Reudniz.

Leske, S. 421.

- 1613 The same, of an intermediate colour between Isabella yellow and carnation red; from the same place.
- 1614 The same, with dark red spots; from the same place.
- 1615 The same Fossil, of a pearl grey and dark red colour; from the same place.
- 1616 The same, of Isabella yellow, brick red, brownish red, and bluish grey colours, in spots running thro' one another; from the same place.

Rem. These varieties are partly soft—partly very soft.

- 1617 A very Quartzzy Granite, with extremely little Mica; from the same place.

Leske, S. 422.

β. Schönberg.

- 1618 Yellowish grey Fuller's Earth.

Leske, S. 434.

- 1619 The same, traversed by very numerous rifts.
- 1620 The same Fossil, but Ironshot in the rifts.
- 1621 Somewhat Ironshot coarse-grained Granite; from Schönberg itself.

Leske, S. 435.

Rem. This piece seems to have lain about there loose.

- 1622 Bluish grey Granite, with adhering yellowish brown, wherein dots of Garnet seem to present themselves, which not at all unfrequently happens in Basalt; from half way up the Mountain.
- 1623 A piece of Basalt with coarse-grained decayed Chrysolite; from the summit of the Mountain.

Leske, S. 436.

- 1624 A small globular piece of Basalt, wherein may be observed the curved Lamellar distinct concretions.
- 1625 A piece of Basalt of small granular distinct concretions,

tions, possessing a metallic lustre here and there in the rifts.

Leske, S. 436.

- 1626 Basalt of a blacker colour, with a little disseminated Chrysolite; from Burgsberg.

Leske, S. 437.

- 1627 A very compact Basalt, in which there is a good deal of Hornblende, and some but slightly decomposed Chrysolite; from the same place.

- 1628 Decomposed tolerably Quartzzy Porphyry; from Wehlersberg.

Leske, S. 438.

- 1629 The same, fine-grained, resembling Argillite; from the same place.

- 1630 The same Fossil, still more fine-grained and very flaty; from the same place.

γ. *Vicinity of Hermsdorf.*

- 1631 A small Basaltic Spheroid, which exteriorly is very much decayed.

Leske, S. 463.

- 1632 Moderately solid Basalt, with much inlaying Hornblende and decomposed Chrysolite; from the articulated columns beside Lauterbauch.

Leske, S. 463.

δ. *North-East vicinity of Görlitz.*

- 1633 A piece of greenish grey Schistose Porphyry, which graduates into true Porphyry, but at the same time resembles grey Wacke in appearance.

Leske, S. 448.

- 1634 A similar piece, wherein still less Felspar occurs, and the basis is fine splintery; from the same place.
- 1635 The same, more inclining to grey, and with a very Quartzzy basis.
- 1636 The same Fossil, but in the recent fracture of a blacker colour and somewhat resembling Basalt; from the same place.
- 1637 A decomposed Argillite, which at the same time is very Ironshot; from the Gold Mine (as are all the specimens to No. 1644) and probably also from the course of the vein.
- 1638 Rather more solid similar blackish grey Argillite; from the same place.
- 1639 A piece of Schistose Porphyry, in which the transition into Argillite is very evident, with numerous traversing narrow slips of Quartz and disseminated Martial Pyrites.
- 1640 A bluish grey solid Argillite, which seems to graduate into Siliceous Schistus, intersected by slips of Quartz and Martial Pyrites.
- 1641 Massive Martial Pyrites with adhering Argillite.
- 1642 A very drusy Ironshot considerable slip of Quartz, with adhering Argillite.
- 1643 Drusy Quartz, with small hexhædral prismatic Crystals acuminate in the usual manner.
- 1644 An intermediate Fossil between Quartz and Hornstone, studded with very small Crystals.

ε. South-West side of Görlitz.

- 1645 Moderately coarse-grained Granite.
Leske, S. 450.
- 1646 Greenish grey Argillite, with disseminated Mica and drusy Quartz.
- 1647 The same, very thin flaty.
Rem. This is met with in veins there.
- 1648 A very beautiful moderately coarse-grained Granite, wherein the Felspar is of an almost yellowish grey colour,

colour, which only here and there passes into smoke grey.

Leske, S. 451.

- 1649 Similar somewhat decomposed Granite; from the same place.
 1650 Coarse-grained Granite, somewhat approaching to Gneiss; found before Neisvorstadt.

Leske, S. 451.

- 1651 A perfect transition from decomposed Granite into Gneiss.
 1652 Very decayed small-grained Granite; from the lowest foot of Landskrone.

Leske, S. 451.

- 1653 The same perfectly decomposed, and with such an overlaying bole-like Earth as proves that here Basalt had lain immediately upon the Granite.
 1654 The same, from the same vicinage, wherein the Felspar is in some places more, in others less decomposed; from the south-east side of Landskrone.

Leske, S. 457.

- 1655 The same, small-grained and with very much Felspar; from the same place.

§. *Clay-Pits beside Görli z.*

Leske, S. 465.

- 1656 Yellowish grey Pipe Clay which comes very near to Porcelain Clay.
 1657 The same, a little Ironshot.
 1658 The same Fossil of a more reddish colour.
 1659 Yellowish white, brick red spotted, indurated Clay, which graduates into Lithomarga.
 1660 The same, of an Ochre yellow colour.
 1661 A genuine yellow Earth of a dark Ochre yellow colour.

1662 A

1662 A Sandstone mixed with this Earth.

n. Landskrone.

α. α. From the foot.

1663 Coarse-grained Granite with adhering fine-grained; from a place below the Gypsum Quarry.

Leske, S. 461.

1664 Basalt of a tolerably light grey colour, and very much inlaying, in some parts decayed, Chrysolite.

1665 Dark and bright grey spotted, small-grained Basalt.

1666 Compact solid Basalt, with coarsely and finely disseminated Chrysolite.

1667 Perfectly decayed Basalt, which in some places contains a large quantity of Earth resembling Bole, with interposed Basalt consisting of Lamellar distinct concretions.

Leske, S. 462.

1668 The same, still more porous and therefore lighter.

Rem. In both specimens it is obvious how the decayed Basalt graduates into this unctuous species of Earth.

1669 Bluish grey Basalt, very much resembling Amygdaloid, in some places with elliptic pores, which here and there are still half, but in other places entirely filled with the yellow Earth.

1670 Dark Ochre yellow passing into grey, Fuller's Earth, slightly resembling Bole.

1671 A pentahædral columnar tolerably large piece which consists entirely of this Earth, so that evidently the Basalt must have been decomposed into it.

Rem. It deserves to be noticed as a singular phenomenon, that a perfect hexhædral prism of Chrysolite occurs in it.

1672 Basalt of the firmest kind, which by description lays under the foregoing, here and there with disseminated Chrysolite.

β. β. From

β. β. From eastern side of the Stone Quarry.

- 1673 Very decayed porous Basalt which had better be called a Basaltic Amygdaloid, wherein are still contained abundant vestiges of the Earth with which these pores were formerly filled.
- 1674 The same Fossil, but the pores not so uniform, are smaller and larger promiscuously.
- 1675 The same Fossil, penetrated more uniformly with the sulphur yellow Argillaceous mass, which gives to the whole, in the opinion of many Geologists, a Volcanic appearance.
- Rem.* In these small cavities is contained a black Fossil, which seems to be minute botryoidal black Manganefian Ore.
- 1676 A piece of Basalt which is somewhat firmer, and in which decomposed Felspar seems to lay.
- 1677 A piece of that yellowish brown Argillaceous mass, which here also lays between the Basaltic layers.
- 1678 The same, of a somewhat darker colour, here and there spotted with a little black, which perhaps may be owing to Manganese.

γ. γ. The Northern Declivity.

- 1679 Compact Basalt which nevertheless may be separated into Lamellæ, with disseminated solitary grains of Chrysolite.
- 1680 Basalt of coarse granular distinct concretions, in other respects similarly circumstanced.
- 1681 Fine splintery Basalt, with more abundantly disseminated Chrysolite.
- 1682 The same, in which also more Hornblende seems to occur.

δ. δ. From the Western side.

- 1683 A piece of Basalt with oblong blebs, in which Chrysolite

folite formerly occurred, but at present only a thin overcast of a white Earth; from Steinhausen.

Leske, S. 457.

1684 The same, with much more numerous pores which have an extremely thin bluish grey coating, in colour agreeing with Calcedony, in hardness with Lithomarga.

1685 A piece of a blackish grey not very porous Basalt; from the layer which Leske mentions in S. 457.

1686 Rather firmer similar Basalt, with a bluish overcast in the pores and a little disseminated Chrysolite; from the irregular columns mentioned in S. 458.

Rem. Probably that overcast is nevertheless Calcedony, which only as it is so delicate, permits itself to be scraped.

1687 A very large, above an inch thick, curved Lamellar distinct concretion of compact Basalt, mixed only here and there with some Chrysolite.

1688 Compact Basalt, in which are only a few minute Garnet and Chrysolite dots, with an adhering aggregate Stone which is a variety of Sienite, in which indeed the Felspar is decomposed, but no vestige of fusion is exhibited; from the vicinity of the Limekilns.

Leske, S. 459.

1689 The yellowish brown Fossil penetrated with sulphur yellow Earth, which is said to lay without connection upon the Granite.

Leske, S. 460.

§. §. South-West side of Landskrone.

1690 A piece of externally decayed Basalt, mixed here and there with decayed Chrysolite.

1691 The same, part of a column, in which, tho' solid, yet even so is mixed a reddish Fossil of the Garnet kind.

1692 The same, with coarse grains of this Fossil.

1693 A

- 1693 A piece of Forge Slag full of large bubbles, which lays strewed about on this side.

Leske, S. 455.

- 1694 Porous Basalt, out of which the red grains are decayed, and therefore have left small apertures; from the vertical columns (S. 455), from whence are also the following.
- 1695 Reddish brown small-grained Basalt, which contains very numerous dark blood red small grains of this Fossil.
- 1696 A piece of Basalt of thick and tolerably straight Lamellar, but also at the same time coarse granular distinct concretions.
- 1697 The same, in which these distinct concretions take an oblique direction, and therefore run into the oblong granular.

Σ. Σ. *Southern side of Landskrone.*

- 1698 A piece of Basalt of tolerably thin Lamellar, but at the same time, coarse and small granular distinct concretions, with no great quantity of Chrysolite.
- 1699 Compact Basalt with tolerably large pores, which originate as usual from the decay of Chrysolite, which may still be discovered in some places.
- 1700 A piece of Basalt, with that above (No. 1688) described Granite adhering, but in which at the same time oblong granular Basalt fragments are inlaid, and moreover many of the Felspar grains which are contiguous to the Basalt possess their usual lustre.

Leske, S. 459.

- 1701 Tolerably large porous Basalt, wherein the pores are slightly coated with the bluish grey sort of stone like Calcedony, and with Chrysolite disseminated here and there.
- 1702 Very compact Basalt, with small-grained Chrysolite and a large-grained piece of decomposed Felspar, but in which not the slightest vestige of fusion appears.

4 F

1703 Compact

- 1703 Compact greyish black Basalt, with inlaying, slightly greenish, still unimpaired Chrysolite.
- 1704 The same, of somewhat indistinctly granular distinct concretions, with much Chrysolite, which for the most part has experienced some alteration.
- 1705 The same, wherein also minute Hornblende Crystals are visible.
- 1706 Basalt of tolerably distinct small granular distinct concretions, with inlaying, half decayed Chrysolite.
- 1707 The same, of very distinct small granular distinct concretions, with a little more Chrysolite.
- 1708 Compact fine splintery Basalt inclining to greyish, absolutely without pores.
- 1709 Reddish brown indurated Clay, which very much resembles that bole formerly mentioned, with small cohering Quartz and Felspar grains, and thin overlying black Manganefian Ore.

l. l. Weigsdorf.

- 1710 Coarse-grained Granite, from the foot of Landskrone, on the road to Jauernik.
- 1711 Coarse-grained, somewhat flaty Granite, which graduates into Sienite; from the Jauernik road.

Leske, S. 469.

- 1712 Small-grained, in some places decayed, Granite; from the small hills among the Jauernik Mountains.
- 1713 A similar, a little firmer Granite; from the hindermost Jauernik Mountain.
- 1714 A piece of Basalt with disseminated Zeolite, which in some places is decayed and therefore forms empty pores, and besides with a little minutely disseminated Chrysolite; from the summit of the Mountain.
- 1715 Yellowish grey Quartz; from a hill eastward of the foremost Jauernik Mountain.

Leske, S. 470.

- 1716 The same, somewhat darker, with superficial black Manganefian Ore.

Bernstadt.

Bernstadt.

- 1717 Coarse-grained Granite with somewhat bluish grey Felspar; from the Goldberg.

Leske, S. 471.

- 1718 A similar Granite with rather brighter Felspar; from the same place.

- 1719 Decomposed Granite with very little Mica; from the same place.

- 1720 Basalt of a greyish black tolerably compact appearance, mixed with some Hornblende, slightly decayed Chrysolite, a good deal of common Quartz and a little Felspar; from Bernardsberg.

Leske, S. 475, 476.

- 1721 A piece of Basalt mixed with much reddish brown Chrysolite and also Hornblende; from the same place.

- 1722 Tolerably compact Basalt, with finely disseminated Hornblende and Chrysolite; from Quargelberg.

Leske, S. 477.

- 1723 Tolerably compact greyish black Basalt, mixed with some Chrysolite, which in some parts has fallen out; from a place near Kiesdorf.

- 1724 A Basalt fragment, from those laying scattered about there.

- 1725 A quite decayed Basalt fragment.

Leske, S. 478.

- 1726 A piece of Basalt of small granular distinct concretions, with coarse inlaying Chrysolite wherein some decomposed Felspar occurs; from Knorrberg.

Leske, S. 479.

- 1727 A Rockstone which is intermediate between Granite and Gneifs; from the south-west side of it.

Leske, S. 480.

- 1728 Very compact greyish black Basalt, in which but little extraneous in general, and only in one place decayed Chrysolite occurs; from the south-west side of it.

- 1729 Very coarse-grained Granite; from Galgenberg.

Leske, S. 481.

Beside Weigsdorf itself.

- 1730 Large-grained Granite with reddish white, somewhat Ironshot Felspar; from the banks of the Witge.

Leske, S. 483.

- 1731 A Trap-like Rockstone with only solitary inlaying Felspar; from the same place.

Leske, S. 484.

- 1732 The same Rockstone, still more fine-grained and compact; from the same place.

- 1733 Schistose Mica with a curved flaty fracture.

Leske, S. 485.

- 1734 Similar very Ironshot Schistose Mica; from the same place.

Leske, S. 486.

- 1735 A piece of a decomposed Rockstone which agrees very much with No. 1732, and perhaps derives originally from the same species.

- 1736 Compact greyish black Basalt, with very numerous Chrysolite grains, which for the most part have a reddish brown colour.

*m. m. Zittau.**a. Giesmansdorf.*

- 1737 A Flint pebble with small inlaying petrifications.

Leske, S. 418.

- 1738 A Quartz pebble which is of a white and pearl grey passing into a carnation red colour, which rarely occurs in it.

- 1739 A piece of bituminous Wood with inlaying Jet.

Leske, S. 488.

- 1740 A similar very impure piece of a yellowish brown colour.

- 1741 Imperfect ditto of a bright liver brown colour.

- 1742 The same Fossil with roots yet inlaying.

- 1743 Black bituminous Wood, brown and delicately fibrous in the middle.

Rem. This is said to lay quite the undermost.

- 1744 Yellowish white indurated, here and there reddish, Lithomarga; from Drausendorf.

Leske, S. 490.

- 1745 The same, of a brick red colour; from the same place.

- 1746 Reddish brown Argillaceous Iron Stone; from the same place.

- 1747 Specular Iron Ore of extremely fine granular distinct concretions, which again form small and round granular ditto.

β. Reibersdorf.

- 1748 Light yellowish grey Tripoli.

Leske, S. 495.

- 1749 The same, penetrated with more Iron Ochre.

1750 Yellowish

- 1750 Yellowish grey indurated Clay, traversed with Iron Ochre and with inlaying Quartz grains.

Leske, S. 496.

- 1751 Yellowish brown indurated Clay, with vegetable roots still inlaying.

- 1752 A Quartz fragment, which is found there in the Clay Pit.

- 1753 Coarse Ironshot Sand moderately compacted.

- 1754 A part of a large Basalt boulder; from Steinberg.

Rem. A coarse-grained Granite fragment resembling that at Landskrone lays in this.

- 1755 Schistose Porphyry with a good deal of inlaying Felspar; from the lowest head of Steinberg.

Leske, S. 496.

- 1756 The same of a lighter grey colour, with less, but slightly decomposed Felspar; from an higher head.

- 1757 The same, very rich in Felspar, however this as well as the basis is decayed; from the highest head.

Leske, S. 497.

- 1758 Coarse-grained a little flaty Granite; from Gikkelsberg.

Leske, S. 497.

- 1759 Greyish black tolerably solid Basalt, with much disseminated Chrysolite; from the summit of it.

- 1760 Ironshot Sandstone, wherein isolated coarse-grained Quartz pebbles occur; from Strassenberg.

Leske, S. 508.

- 1761 Small-grained in like manner Ironshot Sandstone; from Kalkberg near Lüttendorf.

Leske, S. 509.

1762 The

1762 The same, with much intermixed small-grained Limestone; from the same place.

1763 A pebble of Schistose Porphyry; from the small Kamme.

Leske, S. 510.

1764 Small-grained Sandstone with inlaying coarse grains; from Kelchstein.

Leske, S. 511.

1765 Coarse-grained Sandstone; from Oybin.

Leske, S. 512.

1766 Very spongy small-grained Sandstone; from the same place.

1767 The same, mixed with much red Iron Ochre; from the same place.

1768 Sandstone with isolated coarse Quartz grains, which give it the appearance of a Breccia; from the Mill near Oybin.

1769 A fine-grained Limestone which almost seems to graduate into Hornstone, with numerous inlaying small petrifications, some of which seem to be Tellerinites.

1770 The same, with impressions of Pectinites.

1771 A coarse-grained Quartz Breccia; from Töpferberg.

Leske, S. 512.

1772 Decomposed Schistose Porphyry; from the village of Hayn.

Leske, S. 513.

1773 A piece of Basalt, of a rather light greyish black colour, with decomposed Chrysolite; from Johanneststein.

Leske, S. 514.

1774 Tolerably straight flaty Schistose Porphyry; from Ilmenstein.

Leske, S. 514.

1775 Coarse

- 1775 Coarse-grained Quartzite Sandstone; from the Weisenstein of Johnsberg.

Leske, S. 516,

- 1776 Very Ironshot, partly brown, partly grey Sandstone; from Haberberg.

Leske, S. 516,

- 1777 Decomposed Schistose Porphyry; from the West side of the Mountain.

Leske, S. 517.

- 1778 Solid Schistose Porphyry of a very dark leek green colour; from the peak of Johnsberg.

- 1779 Schistose Porphyry of a yellowish brown colour somewhat inclining to greyish, the basis of which is very like Pitchstone.

- 1780 A separate small splintery dark grey spotted Slate of Schistose Porphyry; from the same place.

- 1781 Unequally granular Sandstone; from Kellerberg.

Leske, S. 518.

- 1782 The same with exceeding large grains, filled up by Iron Ochre; from the same place.

- 1783 Very porous Sandstone.

Leske, S. 518.

- 1784 The same, only not so uniform in the grain; from the same place.

- 1785 Coarse-grained Sandstone, in some parts porous, in others with impressions of Pectinites; from the same place.

- 1786 Basalt, with a good deal of Hornblende and some little inlaying Chrysolite; from the Northern side of Kellersberg.

Leske, S. 317.

- 1787 A piece of Basalt, mixed with very much Hornblende and a little Calcareous Spar; from the same place.

1788 Ironshot

- 1788 Ironshot and also porous Sandstone; from the red splintery Rock of Rabenstein.
1789 The same, in some parts traversed with red Iron Ochre; from the same place.
1790 Very compact Basalt, with some inlaying Hornblende and very much Chrysolite; from Blizzenberg, found as a Boulder.
1791 Moderately thick flaty Schistose Porphyry, which stands contiguous there in fixed Rocks; from the same place.
1792 Greenish grey Fuller's Earth; from Hohlstein.

Leske, S. 520.

- 1793 Fine-grained yellowish grey Sandstone; from between Buchberg and Rabenstein.
1794 Extremely fine-grained Sandstone, with adhering coarse-grained; from the Natterstein near Buchberg.
1795 Fine-grained greyish white Sandstone; from the lower Buchberg.

Leske, S. 520.

- 1796 Large-grained Granite, which is somewhat flaty; from Butterberg.
1797 The same, still more flaty, and the Quartz of a rather dark smoke grey colour; from the same place.
1798 The same, somewhat decayed and Ironshot; from the same place.
1799 Small-grained somewhat Ironshot Sandstone; from Neuwaltersdorf.

Rem. This is the kind lays uppermost.

- 1800 The same Fossil, only more solid and much more Ironshot; from the same place.

Rem. This lays in the middle.

- 1801 Yellowish grey but slightly Ironshot Sandstone; from the same place.

Rem. This lays lowermost.

- 1802 Rather coarse-grained Sandstone.
 1803 Light smoke grey tolerably fine splintery Ironshot Quartz; from the foot of Hellenberg, where formerly a Gallery had been driven in.
 1804 Fine-grained greyish white Sandstone; from the upper working place on Hellenberg.

Leske, S. 521.

- 1805 The same, only very little coarser, and here and there Ironshot; from the same place.
 1806 Small-grained in some degree porous Sandstone; from the Old Stone Quarry.
 1807 Very Ironshot slightly porous Sandstone.
 1808 An extraordinarily beautiful petrified heart muscle in Sandstone.
 1809 A part of Basalt boulder with a good many large pores, which in some places are filled with cubic crystallized Zeolite; the whole of a reddish brown colour, and thickly mixed with small Hornblende Crystals; from the Lausche.

Leske, S. 522.

Rem. This entirely resembles the Fulda Basalt from the Crater at Euben.

- 1810 Schistose Porphyry strongly inclining to Mountain green, consisting of small granular roundish distinct concretions; from the highest summit of the Lausche.
 1811 Very compact coarse splintery Schistose Porphyry, somewhat resembling Prasium in its basis; from the Hikkelstein.

Leske, S. 523.

- 1812 Small-grained Granite; from the foot of the Dreieckstein.
 1813 Schistose Porphyry, of the same sort as No. 1810; from the top of the Dreieckstein.
 1814 Fine splintery very firm Schistose Porphyry; from the Waltersdorf Buchberg.
 1815 A part of a Basalt boulder whose basis somewhat approaches to Hornslate, abundantly interspersed with

with beautiful Zeolite and crystallized Hornblende; from the Eastern declivity of the Unglückstein.

1816 A similar piece, with numerous Hornblende Crystals exteriorly only, internally on the contrary it is almost quite compact; from the same place.

1817 A similar piece of Basalt, wherein extremely numerous Hornblende Crystals lay, and white dots are observable which almost seem to be decomposed Felspar, but what is most worthy of observation in it is, that the basis verges still more strongly on Hornslate than in the preceding specimens; from the same place.

1818 A perfect intermediate Fossil between Basalt and Hornslate, with inlaying crystallized Hornblende; from the Eastern summit of the Unglückstein.

Leske, S. 523.

Rem. This specimen is exceedingly remarkable, since it induces most Geologists to consider the Schistose Porphyry (or Hornslate) as belonging to the Primæval Rocks.

1819 A very decayed porous Basalt fragment, which lay between the solid layers, and is called Lava slag.

Leske, S. 524.

1820 A piece of Hornslate, which in like manner is interspersed with very numerous Hornblende Crystals, and besides comes very near to Basalt; from Ortsberg.

Leske, S. 524.

1821 A perfectly similar piece; from Silverberg.

1822 A much brighter coarse splintery Schistose Porphyry, with a good deal of inlaying Felspar; from Steinberg.

Leske, S. 525.

1823 Rather darker Schistose Porphyry, with abundant but small-grained inlaying Felspar; from Reschersberg.

1824 A piece of Basalt, which on the other hand slightly approaches

approaches to Schistose Porphyry; from the Kaltenstein.

Leske, S. 526.

Rem. The Basalt is very compact, contains not much Hornblende and is on the whole thick slaty.

1825 Brick red Ironshot indurated Clay; from Bertsdorf.

Leske, S. 535.

1826 Decayed yellowish grey Basalt with a good many inlaying Hornblende Crystals; from the Hill beside Lower Bertsdorf.

1827 A piece of spheroidal Basalt; from the Village itself.

1828 Coarse-grained pretty much decomposed Granite which is very rich in Felspar and Mica; from Ameisenberg.

Leske, S. 526.

1829 Tolerably bright grey, though firm, Schistose Porphyry with little Felspar, but through which an exceeding narrow slip of indurated Lithomarga traverses in the manner of a vein; from the Kautsche.

1830 Tolerably dark grey Schistose Porphyry which resembles Basalt, but with much inlaying Felspar and fine-grained disseminated Mica; from Scheibenberg.

Leske, S. 527.

1831 Somewhat decomposed Basalt which however is not porous, but only softer than usual; from the foot of the Breitberg.

Leske, S. 528.

1832 Rather lighter yellowish grey Schistose Porphyry, with very much inlaying Felspar; from the Hainewald Huthberg.

Leske, S. 528.

1833 Tolerably firm Schistose Porphyry, with much small grained

grained Felspar and much Hornblende; from the Hainewald Buchberg.

1834 A piece of the same Fossil of a rather darker colour, and with more fine-grained intermingled Felspar; from the same place.

1835 A piece of Schistose Porphyry in which more Hornblende than Felspar occurs; from the summit of it.

1836 The same, of a thick flaty fracture and with less Hornblende; from the same place.

1837 Dark black Basalt, with very numerous Chrysolite grains and some inlaying Hornblende; from the highest point of the ridge of Mountains between the Huth and Breit Mountains.

1838 A piece of very firm Basalt, of a thick flaty fracture on the whole, found there as a boulder.

1839 Fine-grained Granite, of a considerably flaty appearance; from the Mandau Gallery.

1840 Dark smoke grey Schistose Porphyry with much inlaying Felspar; from the Goldberg beside Gross-Schönau.

Leske, S. 529.

1841 Somewhat decomposed Schistose Porphyry with but little Felspar, some inlaying Martial Pyrites and with superficial Iron Ochre in the rifts; from the same place.

Rem. This stone is evidently near to the course of the vein, and therefore is so decomposed.

1842 Schistose Porphyry with much inlaying Felspar, and also disseminated, in some places black, Mica; from the Gross-Schönau Huthberg.

1843 The same, only somewhat more decomposed; from the same place.

1844 Dark greenish grey Schistose Porphyry of coarse and round granular distinct concretions; from the summit of Reuligsgrund.

1845 Somewhat drusy yellowish white Quartz; from the Weissenstein there.

1846 The same Fossil, still more Ironshot in the rifts; from the same place.

1847 Extra.

- 1847 Extraordinarily Ironshot drusy Quartz, in which it is worthy of remark, that in the groupes and on the rifts, a similar bluish and milk white overcast occurs, as is frequently the case in Basalt, and may also be observed here.
- 1848 Tolerably dark blackish grey Schistose Porphyry; from the Forst.
- 1849 A piece of decayed Basalt, from Hockstein.
- 1850 Dark smoke grey Schistose Porphyry, with a coarse splintery fracture, and no remarkable quantity of inlaying Felspar; from the western peak of it.
- 1851 A piece of decayed Basalt of a lavender blue colour; from the foot of the Kunnersdorf Hofeberg.
- 1852 The same somewhat more compact, of a bluish grey colour; from the same place.
- 1853 A part of a Basalt boulder whose basis somewhat approaches to Hornslate, and wherein much Hornblende is intermixed; from the same place.
- 1854 Tolerably firm Basalt of coarse granular distinct concretions, with some inlaying Chrysolite; from the Rock of the Hofeberg itself.
- 1855 A piece of Basalt of large granular distinct concretions, which also slightly verges to Schistose Porphyry; from the Odewitz Spitzberg.

Leske, S. 531.

- 1856 A Tetrahædral columnar distinct concretion of Schistose Porphyry; from the summit of Spitzberg.
- 1857 The same Fossil, with a good deal of small-grained Felspar and fine-grained intermixed Hornblende; from the Stumpfenberg.

Leske, S. 532.

- 1858 Greyish white Potter's Clay; from Niederekkertsberg.

Leske, S. 536.

1859 The

- 1859 The same, more Ironshot and sandy; from the same place.

Rem. This comes very near to Tripoli.

- 1860 The same Fossil, with adhering Quartz grains cohering so as to form a spongy Sandstone; from the same place.

γ. Close to Zittau itself.

- 1861 A very beautiful fine greyish white Potter's Clay; from Kammersberg close by Zittau.
- 1862 Indurated Clay of a brownish red colour, which graduates into Argillaceous Iron Stone, with numerous inlaying fragments of Brushwood perfectly changed to Clay; from the same place.
- 1863 A piece of bituminous Wood; from the same place.
- 1864 Strongly decayed Schistose Porphyry, wherein the Felspar decayed to Porcelain Earth is still discernible, and in which Quartz grains occur; from the same place.
- 1865 A boulder of large-grained Granite which graduates into Gneiss; found on the other side of Zittau.

n. n. *Hernbuth.*

- 1866 A piece of decomposed somewhat spheroidal Basalt; from the Hitchendorf Steinberg.

Leske, S. 540.

- 1867 Greyish black solid Basalt, with some disseminated Chrysolite; from the Stone Quarry in this Mountain.

Leske, S. 539.

- 1868 The same Fossil, with very much inlaying Hornblende, as also more Chrysolite; from the same place.

1869 A

- 1869 A conic fragment of Basalt, with a large aperture in which much decayed Chrysolite may still be observed; from the same place.
- 1870 Basalt perfectly decayed to a greenish grey Wacke, which is said to lay there between the firm Basalt.
- 1871 The same, with a large quantity of the inlaying white kind of Stone which Leske mentions.
- 1872 A smoke grey Flint pebble; from the Sand-beds at the bottom of the Hill.

Leske, S. 540.

- 1873 A piece of Basalt of coarse granular distinct concretions, and very little Chrysolite; from Waldberg.

Leske, S. 541.

- 1874 Tolerably dark grey Schistose Porphyry, interspersed with delicate Felspar grains; from Königsholz.

Leske, S. 543.

- 1875 A Basalt boulder, wherein the Chrysolite is exceeding finely disseminated and seems to be very much decayed; from the Grofsberg.

- 1876 A large piece of yellowish brown, still visibly prismatic, perfectly decayed Basalt; from the Sand-pit beside Hernhuth.

- 1877 The same, tho' not decomposed in so high a degree, of a tolerably pearl grey colour; from the same place.

- 1878 The same, exteriorly yellowish brown, internally pale smoke grey; from the same place.

- 1879 Separate small fragments of this Fossil, in which the exterior shell suffers itself to be peeled off and appears perfectly like Wacke, therefore on the subject of its origin from the decay of Basalt, no doubt can any longer be entertained.

- 1880 Somewhat decomposed coarse-grained Granite, very rich in Felspar.

Leske, S. 544.

1881 The

- 1881 The same, of a more flaty texture; from the same place.
- 1882 Rather smaller-grained Granite, with much greyish blue Quartz; from the west side of it.
- 1883 The same, with much drusy Ironshot Quartz; from the north-west side.
- 1884 Dark yellowish grey Sand; from the Hernhuth Sand-pit.

Leske, S. 544.

- 1885 Greenish grey coherent fragments of an unctuous Earth, and of a glimmering appearance, which is found in this Sand.

Rem. This also seems to originate merely from the Basalt.

- 1886 Very Ironshot coherent Sand, which furrounds an entire Iron Nodule; from the same place.
- 1887 A Granite boulder, from this side of Hernhuth.

Rem. It appears almost perfectly similar to that which occurs in the Basalt, described a good way above.

- 1888 Granite wherein a large quantity of yellowish grey Quartz occurs; from the western foot of Heinrichsberg.
- 1889 A variety of another Granite, with much bluish and yellowish white Felspar, pale smoke grey Quartz, and a little Mica; from the same place.
- 1890 A piece of Granite wherein both the preceeding varieties occur together, and are visibly separated from one another; from the same place.
- 1891 A decomposed white Fossil which Leske called Porphyry, but it seems to me to be no other than a decayed Granite very rich in Felspar, with adhering Argillite; from the same place.
- 1892 Greenish grey very Ironshot Argillite, intersected by a slip of Quartz.
- 1893 Dark greenish grey Fuller's Earth, which here again manifestly originates from the Basalt.
- 1894 The same, much browner and more unctuous, therefore liker to Bole; from the same place.

- 1895 Ironshot Granite ; from Petersgrund there.

Leske, S. 545.

- 1896 A curved Lamellar somewhat decayed Basalt fragment, which rests upon Granite ; from the same place.

- 1897 Decomposed Basalt, wherein also the Chrysolite is decayed completely to Iron Ochre ; from Huthberg.

Leske, S. 546.

- 1898 Small fragments of a genuine Bole, into which the Basalt has been transmuted.

- 1899 The same still more crumbling unctuous Earth ; from the same place.

- 1900 An entire concretion of this decayed Basalt, wherein also a somewhat columnar form may be recognised, and to which Granite immediately succeeds, which by no means lays merely loose upon it, but is firmly united with it, is also just as much decomposed as the Basalt, and in which the Felspar exhibits all the properties of Porcelain Clay, but no vestige of fusion ; from the same place.

- 1901 An externally very porous, in general pretty much decayed, Basalt fragment ; from this vicinage.

o. o. Löbau.

- 1902 An extremely singular somewhat decomposed Fossil, which comes nearest to Argillite, but exhibiting a kind of granular distinct concretions which are formed by a delicate and stellularly diverging fibrous fracture ; from Rükkersdorf near Hernhuth.

- 1903 A piece of Basalt, in which beside the Hornblende, very much Felspar which is still quite undecayed and possessing its perfect lustre occurs ; from the Löbau Mountain.

- 1904 Another pretty much allied to the foregoing coarse-grained Fossil, which consists of much Hornblende, yellowish white inclining to greyish conchoidal nearly

nearly transparent Quartz, and some decomposed Felspar; from the same place.

Rem. I consider it as a variety of Sienite.

p. p. Bauzen.

- 1905 Bituminous Wood with inlaying Martial Pyrites; from Selschwiz.
- 1906 The same, with an extraordinary quantity of for the most part decomposed Hepatic Pyrites; from the same place.
- 1907 A piece of coarse-grained Granite, with pale reddish white Felspar; from Bauzen itself.

IV. A F R I C A.

- 1908 A very beautiful piece of yellowish white, chestnut brown and greenish grey annulated, and a little black figured, Egyptian Jasper; from the vicinity of Suez.
- 1909 A similar more angularly streaked piece, with delicate dendritic delineations; from the same place.

END OF THE GEOGRAPHICAL COLLECTION.

17

ÆCONOMICAL COLLECTION

Æ.

FIRST CLASS.

ÆCONOMICAL COLLECTION.

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ECONOMICAL COLLECTION

OF

V.

ŒCONOMICAL COLLECTION.

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FIRST CLASS.

MINERALS WHICH ARE EMPLOYED FOR
DOMESTIC PURPOSES.

1. *FOR STONE BUILDINGS.*

- 1 Smoke grey durable Basalt; from Bockenheim near Frankfurt on the Main.
- 2 Greyish white only here and there a little Ironshot Sandstone; from Lahnberg near Marpurg.
- 3 Reddish grey similar Sandstone, which is more Ironshot and not so serviceable; from the same place.

2. *FOR MORTAR.*

- 4 Terras, from Andernach.
- 5 Grey pulverised Terras; from another place on the banks of the Rhine.
- 6 Grey compact Limestone with petrifications; from Thuringia.

Rem. This mixed with much Sand, affords a good Mortar.

3. *FOR*

3. FOR ROOFING.

- 7 Greyish black very thin flaty Argillite; from Lehsten near Saalfeld.

4. FOR PLASTERING.

- 8 Yellowish grey foliated Gypsum; from Eisleben.

5. FOR FLOORING.

- 9 A piece of broad foliated Gypsum; from the same place.

6. FOR PAVING.

- 10 Undulatingly flaty Gneifs, with a very large proportion of Quartz; from Lösnitz near Freiberg.
11 Compact blackish grey Basalt, with very little intermixed Hornblende; from Upper Lusatia.

7. FOR LAND-MARKS AND CORNER PILLARS.

- 12 A piece of a large Basalt column, with a little intermixed Chrysolite; from the same place.

8. FOR REPAIRING ROADS.

- 13 Very firm greyish black Basalt, with a little intermixed Zeolite; from the Causeway near Cassel.
14 Reddish brown Basalt, with numerous small Zeolite groupings and inlaying Hornblende Crystals; from Fulda.

Rem. This is not near so good as the former for this use.

9. FOR THE AMELIORATION OF ARABLE LAND
AND MEADOWS.

- 15 Yellowish grey compact Limestone ; from Thuringia.
- 16 Yellowish white burned and afterwards flaked Lime, as it is strewed over the fields in Thuringia.
- 17 A similar sort somewhat more inclining to reddish, wherein are also small grains ; this is also probably more Ironshot and therefore not so useful ; from Lep-tiz.
- 18 Greyish white granular Limestone with Dendritæ ; from Upper Lusatia.

Rem. This is not so serviceable for manure.

- 19 Pulverised similar Limestone.
- 20 Yellowish grey foliated Gypsum ; from Eisleben.
- 21 Yellowish grey fibrous Gypsum ; from Bottendorf.
- 22 Slightly burned similar Gypsum,
- 23 Gypsum burned perfectly to Paris plaster and ground to powder ; from Thuringia.
- 24 Striated Gypsum of a yellowish white colour, which has deposited on the thorns of a *House of gradation* ; from Durrenberg.
- 25 Gypsum of a greyish white colour, without any remains of the thorns, and having apparently lost in some places its water of crystallization.

Rem. It is employed there with great advantage for the improvement of land.

- 26 Broad foliated mixed with much granularly foliated Gypsum ; from Eisleben.

Rem. At Ilmenau this is employed very advantageously as a manure, as Voigt reports.

- 27 Pulverised Baroselenite ; from the Kurprinz near Freiberg.

Rem. It is indeed not nearly so good as Gypsum, but yet is serviceable in rich soils.

- 28 Smoke grey indurated very Calcareous Marle; from Eisleben.

10^a. FOR FUEL.

- 29 Pitch Coal upon flaty Coal; from Wettin.
30 Clove brown bituminous Wood; from Beuchlitz.

10^b. FOR BLACKING STOVES.

- 31^a A piece of Graphite.

11. FOR FLINTS.

- 31^b Dark smoke grey Flint; from Lithuania.
32 Yellowish grey Flint; from Champagnè.

12. FOR THE PREPARATION OF FOOD AND DRINK.

- 33 Potstone, from Norway.

Rem. It is not much superior to the Swiss.

13. FOR WRITING SLATES.

- 34 Greyish black Argillite; from Bareuth.

14. FOR CATTLE.

- 35 Greyish white Rock Salt; from Wielizca in Gallicia.

SECOND CLASS.

FOSSILS WHICH ARE WORKED, WROUGHT,
OR IN ANY MANNER EMPLOYED IN MANU-
FACTURES, ARTS OR TRADES.

1. FOR STATUARY AND STONE-CUTTING.

- 36 Quite fine-grained white Limestone; from Krotendorf in the Erzgebirge.
- 37 Small-grained yellowish Limestone; from Grünhain.
- 38 Fine-grained yellowish Sandstone; from Pirna.

2. FOR TURNED AND CARVED WORK.

- 39 Greyish white Steatites; from Bareuth.
- 40 An Idol of Chinese Steatites.
- 41 Dark green Serpentine with Garnets; from Zöblitz.
- 42 Indurated Talc; from Saxony.
- 43 Variegated Lithomarga; from Zwickau in Saxony.

3. POLISHED STONE WORK.

a. Marble.

a. a. Common Marble.

a. Nearly of a single colour.

- 44 Extremely fine-grained bright white Limestone; from Krotendorf.
- 45 Fine-grained but a little darker Limestone, polished for Marble; from Grünhain.
- 46 Extremely pale greyish white Marble, here and there sprinkled with green; from Kalkgrün in Saxony.
- 47 The same, very slightly streaked with greenish grey; from the same place.

- 48 Rather darker greyish white Marble which is also somewhat coarse-grained; from the same place.
- 49 Pale yellowish grey Marble; from Norway.
- 50 Another, but much coarser grained and therefore inferior; from Bareuth.
- 51 Tolerably dark yellowish grey Marble; from Norway.
- 52 Ochre yellow Marble marked very slightly with Dendritæ; from Italy.
- 53 Very indifferent Green Marble; from Norway.

Rem. This is properly a Steatites but is employed there as Marble.

- 54 Brownish red Marble.

β. Variegated Marbles.

- 55 Reddish and bluish, grey and white, the latter in abundance, streaked Marble, with adhering Ironstone; from Carlsbad in Bohemia.

Rem. The whole is nothing but Calcareous Sinter.

- 56 Bright and greyish white Marble, spotted with purple red; from Florence.
- 57 Yellowish and greyish white Marble spotted with brown; from Bareuth.
- 58 A slab of Florentine Ruin Marble.
- 59 Yellow Marble, spotted with brown and whitish, and slightly veined with grey; from Würtemberg.
- 60 A very beautiful Marble shaded with greyish and yellowish white, and veined with brownish red; from Bareuth.
- 61 Isabella yellow similarly veined Marble; from the same place.
- 62 Isabella yellow Marble with tolerably parallel ochre yellow veins, and extremely small dendritic delineations; from Würtemberg.
- 63 A similar, here and there rather dark veined, Isabella yellow Marble.
- 64 Yellowish grey ditto, with dark and delicate specks; from Bareuth.

65 Yellowish

- 65 Yellowish grey Marble with an ochre yellow narrow stripe; from Norway.

Rem. Too coarse-grained to please the eye,

- 66 Yellowish grey reddish sprinkled Marble of the same description; from the same place.
- 67 Isabella yellow Marble spotted with dark red; from Würtemberg.
- 68 Yellowish white Marble, shaded with red; from Norway.
- 69 Dark yellowish grey, rather dark brown shaded, Marble; from the same place.
- 70 Dark reddish brown Marble spotted with ochre yellow and white; from Italy.
- 71 The same with a little lighter spots and dots; from the same place.
- 72 Reddish brown yellowish spotted, very slightly dendritically figured Marble; from the same place.
- 73 From the reddish brown passing into honey yellow, on one side whitish striped, Marble; from the same place.
- 74 Yellowish and red, as likewise white sprinkled Marble; from the same place.
- 75 Yellowish Marble with grey and white fortification-like veins; from the same place.
- 76 Pearl grey, yellowish white and ochre yellow, partly spotted, partly veined, Marble; from the same place.
- 77 Ochre yellow, yellowish white and reddish white, striped fortificationwise, here and there sprinkled Marble; from the same place.
- 78 Brown, ochre yellow and yellowish white, partly striped, partly sprinkled Marble; from the same place.
- 79 Reddish brown, white veined and yellowish grey spotted Marble; from the same place.
- 80 Yellowish white, reddish brown and rose red striped and sprinkled Marble of a beautiful appearance; from the same place.
- 81 Greyish and yellowish white, reddish sprinkled, dark ochre yellow striped Marble; from the same place.

Rem. This is intersected by a slip of fibrous Limestone.

82 Yellowish

- 82 Yellowish grey, smoke grey, white spotted, yellowish and reddish brown zoned Marble; from the same place.
- 83 Dark yellowish grey, somewhat white and brown shaded Marble; from the same place.
- 84 Yellowish brown, and a little red spotted and veined Marble; from the same place.
- 85 Reddish brown, wine yellow shaded Marble; from the same place.
- 86 Pearl grey, reddish white, reddish brown and brownish red shaded and veined Marble; from the same place.
- 87 On one side, greyish, yellowish and reddish white, as also brown zoned, but on the other cochineal red sprinkled Marble; from the same place.
- 88 Wine yellow and greenish grey, bright and dark brown as also carnation red zoned and veined Marble; from the same place.
- 89 Yellowish and reddish grey, carnation and brownish red, as also brown spotted and veined Marble; from the same place.
- 90 Yellowish and reddish brown with intermixed yellowish white shaded Marble; from the same place.
- 91 Bright white, dark carnation red, as also reddish brown spotted and veined Marble; from the same place.
- 92 Yellowish and reddish white, blood red delicately veined Marble; from the same place.
- 93 Brownish red, white veined Marble; from Lobengrün in Bareuth.
- 94 Reddish brown, pale greyish and yellowish white, partly striped, partly veined, Marble; from Norway.
- 95 Reddish brown, white and yellow zoned fortification-wise, but in some parts spotted Marble.
- 96 Reddish brown, white spotted, dark brown and white, here and there veined Marble; from Russia.
- 97 Carnation red and white shaded, delicately reddish brown veined, Marble; from the same place.
- 98 Rather paler carnation red and greyish white shaded Marble; from the same place.
- 99 Partly blood, partly brownish red, grey white and greenish grey spotted Marble; from Blankenburg.
- 100 Reddish brown, greyish white, somewhat green and
very

very slightly blood red sprinkled and spotted Marble; from the same place.

101 Pearl grey, greyish white and blood red spotted and sprinkled beautiful Marble; from the same place.

102 Reddish brown, greyish white and olive green spotted Marble; from the same place.

103 Partly reddish brown, partly brownish red, reddish white and olive green shaded and spotted Marble; from the same place.

104 Yellowish grey, greyish white, smoke grey and brick red with a little green, spotted, shaded and veined Marble; from Scherdlas near Weidesgrün in Bareuth.

Rem. This piece is extraordinarily beautiful.

105 Brownish red, yellowish grey shaded, a little greyish white spotted and exceeding delicately dark green veined Marble; from Kirch Gartendorf there.

106 Yellowish grey mixed with a little brown, greyish white striped, and dark green very delicately veined Marble; from the same place.

107 Reddish brown, reddish and greyish white shaded Marble, very delicately veined with greenish, but broader with bright white, and in such a manner that the latter veins intersect one another in the manner of mineral veins; from Lobengrün there.

108 Dark carnation red and yellowish grey shaded, greenish grey reticularly and very abundantly veined Marble; from the same place.

109 Reddish brown and shaded yellowish grey and greyish white veined Marble; from the Hartz.

110 Yellowish grey and smoke grey shaded, reddish brown, blood red, greenish grey and greyish white, partly spotted, partly veined Marble; from Blankenburg, as are also the following as far as No. 120.

111 Greyish white and smoke grey shaded, dark blood red and green sprinkled and spotted Marble.

112 Greenish and smoke grey, as also brownish red and greyish white spotted Marble.

113 Smoke and pearl grey, as also greyish white shaded, blood red sprinkled, and greenish grey veined Marble.

114 Blood red, reddish white and yellowish white shaded, reddish brown and Mountain green spotted and veined Marble.

115 Yellowish

- 115 Yellowish grey and greyish white, as also somewhat greenish grey spotted and shaded, blood red spotted and sprinkled Marble.
- 116 Pale smoke grey and greyish white shaded, reddish brown and olive green veined and spotted Marble.
- 117 Smoke grey and greyish white shaded, dark brown and very slightly blood red sprinkled Marble.
- 118 Greyish white, smoke grey, and reddish brown, but irregularly sprinkled Marble.
- 119 Greenish grey and reddish brown spotted Marble.
- 120 Yellowish brown smoke grey veined Marble.
- 121 Reddish brown, dark smoke grey, extremely delicately but abundantly veined Marble; from Lobengrün in Bareuth.
- 122 Greyish white, dark greenish grey veined, light blood red spotted, Marble; from Wurtemberg.
- 123 Smoke grey and white spotted, pale reddish veined Marble; from Russia.

Rem. It is too coarse-grained to be beautiful.

- 124 Reddish brown, very slightly white sprinkled Marble; from Gothland.
- 125 Dark smoke grey, greyish white and yellowish grey shaded Marble; from Russia.
- 126 Light smoke grey yellowish grey veined Marble; from Sherdlas near Widesgrün in Bareuth.
- 127 The same, partly spotted, partly veined; from Lohmar near Bernstein there.
- 128 Smoke grey somewhat yellowish shaded Marble, with dark veins; from Wöllattendorf near Hof at that place.
- 129 Greyish white a little bluish shaded Marble; from Schwesendorf near Regnizlosau there.
- 130 A little darker yellowish grey Marble, with strong and delicate very abundant brown veins; from Trogenau near Hof there.
- 131 Dark smoke grey, yellowish spotted Marble, with delicate veins of Martial Pyrites; from Eichelberg near Hof.
- 132 Partly smoke, partly blackish grey and white veined Marble; from Italy.
- 133 Yellowish grey mixed with a little brown, dark brown and

- and white veined Marble; from the Hofer Stadtbruch in Bareuth.
- 134 Similarly shaded, white veined, and in one place red sprinkled Marble; from Weidesgrün in Bareuth.
- 135 Smoke grey and yellowish grey shaded, but slightly white streaked Marble; from Schubelhammer below Bernstein in that country.
- 136 Greyish black, extremely little white veined Marble; from Schwarzenbach.
- 137 The same with some more white veins; from the same place.
- 138 Greyish white, dark smoke grey shaded and veined Marble; from Blankenburg.
- 139 The same with fewer white and narrower dark streaks; from the same place.
- 140 From the greyish white passing through smoke grey into greyish black, somewhat sprinkled Marble; from the same place.
- 141 Smoke grey, wine yellow and brownish black fortificationwise streaked Marble; from Wurtemberg.
- 142 Greyish black white spotted Marble; from Blankenburg.
- 143 Yellowish grey, brown and white shaded, blackish grey sprinkled Marble; from Norway.
- 144 Yellowish grey, greyish black spotted Marble, which spots however consist of thick black veins; from Russia.
- 145 Yellowish grey and greyish white shaded, blackish brown veined Marble; from Norway.
- 146 Smoke grey, greyish white spotted, greyish black and greenish grey sprinkled Marble; from Elbingerode.
- 147 Greyish black, greyish white zoned Marble; from Russia.
- 148 Dark bluish grey, greyish white shaded and streaked Marble, with some few dots of Martial Pyrites; from the same place.
- 149 Smoke grey Marble, but barely shaded by greyish white; from Norway.
- 150 Yellowish grey, greyish white annulated Marble; from Saltpollen.

b. b. Lumachella.

- 151 Greyish black Lumachella with very few whitish shells; from Norway.
- 152 A very beautiful yellowish grey Lumachella, with large inlaying Ammonites.
- 153 A similar Lumachella traversed by a narrow slip of white granular Limestone.
- 154 Smoke grey, a little yellowish shaded Lumachella, with Belemnites and other yellowish brown Fossil shells.
- 155 A ditto, with neat, minute, extremely abundant petrifications.
- 156 Greenish grey somewhat yellowish grey spotted Lumachella.
- 157 A similar ditto, but with ochre yellow sprinklings.
- 158 Yellowish grey Lumachella with numerous ochre yellow ditto; from Leineck in Bareuth.
- 159 The same, with somewhat smaller but extremely numerous petrified shells.
- 160 Pale yellowish grey, ochre yellow shaded Lumachella; from Sonnenberg.
- 161^a Two large slabs of smoke grey, reddish shaded, white spotted Lumachella.
- 161^b Pale yellowish grey, reddish white spotted Lumachella, with an extraordinary quantity of shells.
- 162 Yellowish grey, somewhat greenish grey shaded, white and greyish black sprinkled Lumachella; from Norway.
- 163 Yellowish grey, greenish grey and yellow sprinkled ditto; from the same place.
- 164 Greenish grey, bluish grey shaded Lumachella.

Rem. The Lumachellas without any places assigned to them, are all from Cobourg.

b. Alabaster.

- 165 White, pale grey, extremely slightly streaked Alabaster; from Italy, from whence likewise are all the following specimens to No. 181.
- 166 The same, with darker and more numerous streaks.
- 167 The same, on one side a little yellowish grey shaded, and pale grey veined Alabaster.
- 168 Yellowish white, greyish white shaded, and somewhat darker veined Alabaster.

- 169 A similar Alabaſter, but ſtill darker and furniſhed with abundant veins.
- 170 Greyiſh white Alabaſter, furniſhed with numerous grey veins and broad ſtripes.
- 171 A large ſlab of yellowiſh white, very abundantly yellowiſh grey veined Alabaſter.
- 172 The ſame, with fewer narrow, than broad veins.
- 173 Similar Alabaſter, with very few delicate, but on the contrary very abundant broad veins.
- 174 Greyiſh white and yellowiſh grey ſhaded, dark ſmoke grey veined Alabaſter.
- 175 Greyiſh white, yellowiſh grey zoned Alabaſter.
- 176 A ſimilar narrower and more abundantly yellowiſh grey zoned Alabaſter.
- 177 Yellowiſh grey and greyiſh white alternately ſtreaked Alabaſter.
- 178 Bright white, dark yellowiſh grey ſlightly inclining to browniſh, veined Alabaſter.
- 179 Pale yellowiſh grey, ſmoke grey ſtriped and veined Alabaſter.
- 180 Yellowiſh grey, browniſh white and ſmoke grey ſtriped Alabaſter.
- 181 Yellowiſh grey, greyiſh black veined Alabaſter.
- 182 Greeniſh grey Alabaſter with very few dark ſtripes; from Cologne.
- 183 Yellowiſh grey, wine yellow and reddiſh ſpotted Alabaſter; from Italy.
- 184 Yellowiſh grey and greyiſh white ſhaded, ſmoke grey a little inclining to bluiſh veined, extremely fine-grained Gypſum; from Eiſleben.
- 185 Greyiſh white fine-grained Gypſum, with a large quantity of ſmoke grey and ſmall-grained ditto; from Italy.
- 186 Wine yellow, coarſe and large granularly foliated Gypſum; from the ſame place.

Rem. On account of its large grain it is employed there as an Alabaſter.

c. Agate.

- 187 Milk white, a little bluiſh grey ſhaded Agate; from the Palatinate, from whence are alſo all the following ſpecimens to No. 197.

Rem. This is merely Calcedony.

- 188 Pearl grey, milk white veined Agate, similarly circumstanced.
- 189 Agate, whose nucleus is yellowish white, which passes into milk white, and through this, at the exterior part into bluish grey.
- 190 Milk white, bluish, smoke and yellowish grey, fortificationwise veined Agate, with adhering green Earth.
- 191 Yellowish white, milk white, and on the outer border, blood red annulated Agate.
- 192 Greyish white, violet blue, and quite at the outer edge, milk white annulated Agate.

Rem. Calcedony in Amethyst.

- 193 Greyish white, pearl grey, and reddish brown veined and spotted, with extremely delicate red points, dotted Agate.

Rem. Consists of Flint, Calcedony and Jasper.

- 194 A similar Agate, but mixed with more red, of the same constituent parts.
- 195 Milk white, exteriorly yellowish grey and bluish grey annulated Agate, furnished almost throughout with red dots.

Rem. Almost pure Calcedony, the dots excepted.

- 196 Milk white, yellowish annulated, exteriorly bluish grey bordered Agate, whose nucleus is dotted with red, but in other respects circumstanced as the foregoing.
- 197 Blood red Agate with whitish half rings, but encircled exteriorly with yellowish grey.

Rem. Carnelian and Calcedony occurring in a Quartz groupe, are its constituent parts.

- 198 Greyish white, yellowish and reddish brown veined Agate; from the Halsbach near Freiberg.
- 199 Greyish and yellowish white, dark blood red spotted and striped Coral Agate; from the same place.
- 200 Reddish brown, more or less dark shaded, greenish grey striped Agate; from Gmandstein.

Rem. Properly only Jasper.

201 Yellowish

- 201 Yellowish and smoke grey very delicately veined Agate, intersected by a reddish zone; from Kemnitz in Saxony.

Rem. Properly Woodstone.

- 202 Bluish grey, yellowish white encircled Agate.

Rem. Merely Calcedony.

- 203 Milk white, encircled with a yellowish ring and afterwards surrounded with bluish grey, figured Agate.

- 204 Light honey yellow annulated, encompassed exteriorly with pearl grey, Agate, with a yellowish white nucleus.

Rem. Calcedony and internally Amethyst.

- 205 Bluish grey and milk white shaded, on the one border blood red and brownish red veined and sprinkled, Agate.

Rem. Calcedony and Carnelian.

- 206 Greyish white, yellowish white, and brownish red annulated Agate.

Rem. Quartz and Carnelian.

- 207 Light yellowish brown, reddish brown and reddish white shaded Agate.

- 208 Reddish brown, on the outer margin darker, greyish white encircled Agate.

Rem. Jasper and Amethyst.

- 209 Greyish white, milk white shaded, Ochre yellow annulated and somewhat blood red striped Agate.

Rem. Amethyst, Calcedony and Carnelian, all from No. 202 to this, are from Deux-Ponts.

- 210 Leek green red dotted Heliotropium, with adhering brown Jasper; from Bohemia.

Rem. This is chiefly used as an Agate.

211 Yellowish

- 211 Yellowish brown, bluish grey spotted Agate; from the Palatinate.
- 212 Ochre yellow, greyish white veined Agate.
- 213 Yellowish and reddish brown shaded, milk white veined Agate; from Italy.

Rem. Jasper and Calcedony.

- 214 Bright blood red, milk white spotted Agate; from the same place.
- 215 Blood red, smoke grey spotted Agate; from Hornburg.
- 216 Carnation red, pearl grey and greenish white shaded Agate, with greyish white spots; from Norway.
- 217 Bright and dark brown, greenish grey spotted Agate; from the Palatinate.
- 218 Liver brown, white and somewhat brown spotted Porphyry; from Saxony.

Rem. This also supplies the place of genuine Agate very well.

c. Other Polished Ware.

- 219 Dark olive green, sulphur yellow veined Serpentine; from Schönburg.
- 220 Olive green, black and yellowish grey spotted Serpentine; from Zöbliz.
- 221 Olive green, blackish green veined Serpentine; from Waldheim.
- 222 Somewhat brighter olive green, black and greyish white spotted Serpentine; from Zöbliz.
- 223 Bright olive green Serpentine, with large pale greenish grey spots; from the same place.
- 224 Somewhat darker olive green, dendritically figured, greenish white spotted and veined Serpentine; from the same place.
- 225 Olive green, greyish black and sulphur yellow veined Serpentine; from Waldheim.
- 226 Leek green, blood and brownish red veined Serpentine; from Eisenberg at Hohenstein.
- 227 Olive green, dark reddish brown spotted Serpentine; from Zellerwald.

228 Olive

- 228 Olive green, whitish veined Serpentine; from Zöbliz.
- 229 The same, mixed with somewhat more brown, and exceeding delicate white veins; from the same place.
- 230 Mountain green and black spotted and veined Serpentine; from the same place.
- 231 Very ordinary greenish grey Serpentine; from Grönland.
- 232 Blackish green, yellowish and reddish white spotted Serpentine, with some similar veins; from Zöbliz.
- 233 Dark green, reflecting brownish, Serpentine, with delicate red dots.
- 234 Dark brown Serpentine, with some shining dots; from Eisenberg near Hohenstein.
- 235 Serpentine of a brighter brown colour, with Pinchbeck brown dots which seem to be Talc; from the same place.
- 236 Liver brown Serpentine, with darker veins and spots; from the same place.
- 237 Brighter brown Serpentine marked in the same manner; from the same place.

Rem. These last five varieties are amongst the rarest.

- 238 Yellowish brown, black spotted and veined Serpentine; from the same place.
- 239 Yellowish brown, liver brown spotted Serpentine; from the same place.
- 240 Reddish brown, yellowish grey spotted, and blackish grey veined Serpentine; from Zöbliz.
- 241 Greenish grey, blood red and brown very beautifully veined and spotted Serpentine; from the same place.
- 242 Bright blood red, greenish grey spotted Serpentine; from the same place.

Rem. Both varieties are rare.

- 243 Dark Ochre yellow, brownish black and greenish grey spotted Serpentine.
- 244 Very beautiful pearl grey, lavender blue, carnation red and reddish white veined, indurated Lithomarga, called Terra miraculosa Saxonæ.

245 Lavender

- 245 Lavender blue, yellowish and reddish white spotted and veined ditto.

Rem. No. 244 shows the tolerable polish that this Lithomarga is susceptible of.

- 246 A tablet of dark pearl grey white spotted ditto.
 247 A tablet of pearl grey and Lavender blue shaded ditto; from Planiz near Zwickau.
 248 Reddish grey polished Steatites, with some dendritic delineations; from Bareuth.
 249 A greenish grey very fine flaty polished Argillite; from the same place.
 250 A piece of pale smoke grey Flint, which was part of a cane head.
 251 A necklace of large polished Amber beads.
 252 A piece of polished hepatic Mercurial Ore, with an engraved coat of arms and a chain which doubtless served to fasten it to a necklace; from Idria.

4. FOSSILS EMPLOYED AS JEWELS.

- 253 A brilliant-cut Chrysolite; from Russia.
 254 A quantity of Rubies; from Ceylon.
 255 About a dram of Hyacinths; from the same place.
 256 One and a half inch large dark crimson red Garnet; from the same place.
 257 A polished Labradore Felspar, reflecting Lazuli blue and Silvery white; from the Coast of the same name in America.

5. FOR CASTING IN STUCCO AND BRONZING.

- 258 Fine-grained smoke grey striped Gypsum; from Eisleben.
 259 Broad foliated Gypsum mixed with some granularly foliated; from Bottendorf.

6. *FOR VARIOUS COLOURS AND PAINTING.*

- 260 Yellow Earth, from Saxony.
261 A brick red indurated Bole-like Clay; from Upper Lusatia.
262 A similar Clay of a brownish red colour; from Oberneundorf.

7. *FOR WRITING AND DRAWING.*

- 263 A white Chalk, from the English coast.
264 Red Chalk or Reddle; from Bohemia.
265 Black Chalk, from Italy.
266 Graphite or Plumbago; from Dumfries in Scotland.

8. *FOR TILES.*

- 267 Tile Loam; from Wehrau in Upper Lusatia.

9. *FOR POTTERY.*

- 268 Greyish white Pipe Clay; from Tiefenfurth near Wehrau.
269 Very fine and beautiful reddish white Potter's Clay; from the same place.
270 A very Ironshot indurated Clay which is not so serviceable; from Leipsic.
271 Grey indurated Clay, which contains still more Sand; from Rothenburg in Hesse.

10. *FOR CRUCIBLES.*

- 272 A compound of Sand and much Mica, which is employed in Russia in the fabrication of Crucibles.

II. FOR PORCELAIN.

273 Very fine reddish white Porcelain Clay; from Aue near Schneeberg.

274 An extremely fine, nearly pure white, Porcelain Clay; from Bornholm.

Rem. It serves for the manufacture of Porcelain at Copenhagen, particularly for figures and Biscuit.

275 Another greenish white, which is intimately mixed with a much larger proportion of Talc, but notwithstanding is very fine; from the same place.

Rem. This is employed for vessels.

276 A Felspar decomposed to Porcelain Clay, in decayed Granite; from Meissen.

12. FOR GLAZING.

277 Calcined Felspar; from Bornholm.

Rem. It approaches very much to Porcelain Clay, but is employed there only for Glazing.

278 The same, actually vitrified in the fire, melted to an excellent greyish white transparent glass.

13. FOR COLOURING GLASS BLUE.

279 Massive grey Cobalt Ore in Quartz; from Schneeberg.

Rem. This is as well on its own account as that of its mixture extremely acceptable to the smalt works; the Quartz is here almost perfectly free from Iron Ochre, which therefore gives it an higher value.

280 Coarsely disseminated white Cobalt Ore, with some grey Quartz; from the same place.

281 The

- 281 The same, in Quartz, which is mixed with much Argillite; from the same place.

Rem. On account of the Argillite this is much inferior, there is nothing wanting to render it completely useless but merely some Calcareous Spar or Baroselenite.

- 282 Superficial Cobaltic germinations upon bituminous Marlite; from Mansfeld.
- 283 Four packages of Smalt samples, with the signatures OE. OE ges. OE ft. OH. OS.
- 284 Six others with the following signatures MC. MCB, ME ges. MEB. MH. MS.
- 285 Smalts with the following signatures, FB. FCB. FE. FEB. FH. and FS.
- 286 Four packages of Smalt with the signatures FFC. FFE. FFH. FFS.
- 287 Two packages of Smalts, with the signatures FFFC. and FFFE.

Rem. Every merchant understands the translation of these signatures, those who desire to become acquainted with them may consult Lehman's Cadmiologia, 1 Th. S. 70.

14. COLOURS PREPARED BY FIRE?

- 288 Different samples of Indigo blue, together with one of woollen stuff, prepared by Mr. D. Vogel.

Rem. The account which Vogel had written of this is wanting.

- 289 Artificial Prussian Blue, which the elder Dr. Weissman is said to have prepared from Soot, at Erlangen in 1741.

- 290 Different samples of Verdigris, by the before mentioned Vogel.

15. FOR POLISHING POWDERS.

- 291 Common white Chalk.
- 292 A compound of Magnetic Iron Ore, some Garnet and Mica; from Spain.

Rem. It is there used as Emery and considered as such, as is also often the case in Germany.

- 293 Brown Garnet with disseminated Hornblende and some Martial Pyrites; from Saxony.

Rem. It performs the same service.

- 294 Red Hæmatites; from Schneeberg.

16. FOR THE DETRITION OF STONES.

- 295 Two small tablets of Saxon Lithomarga, which are used as is well known at Zöbliz in the grinding down of the Serpentine.

- 296 Five small tablets of the so called Stone Clay; from Kemniz in the Erzgebirge.

Rem. They are for the most part indurated Clay or decomposed indurated Porphyry.

- 297 Two tablets of red decomposed Porphyry; from Gablent.

- 298 A similar red and green spotted tablet; from Rothlof.

- 299 A very micaceous similar Ochre yellow tablet; from Euba.

- 300 Three tablets of Argillite with oblong spots; from Rochliz, there called Hornslate.

17. FOR LEVIGATING?

- 301 Serpentine, from Waldheim.

- 302 Light olive green Serpentine with inlaying Garnets; from Zöbliz.

- 303 Blood red Serpentine; from the same place.

18. FOR MILL-STONES.

- 304 Yellowish and reddish grey fine-grained Sandstone; from Marburg.

19. FOR FLOORS OF STAMPING MILLS?

- 305 Firm Schistose Porphyry; from Upper Lusatia.
 306 Very firm Basalt with inlaying Hornblende; from the same place.

20. FOR TOUCHSTONES.

- 307 Yellowish grey common filiceous Schistus; from Wurtemberg.

Rem. It is ground for the purpose and has actually been used as such evidently, Basanite is still better for this purpose.

21. FOR SMEARING MACHINES.

- 308 Plumbago; from Scotland.

22. FOR TAKING OUT GREASE AND FULLING.

- 309 Greenish grey Fuller's Earth; from England.
 310 A ditto, very fine yellow and rose red streaked; from France.

Rem. This is properly a very fine indurated Clay, approaching to Lithomarga.

- 311 Yellowish grey Fuller's Earth; from Rosswein.
 312 The same somewhat darker, and as it appears mixed with more Sand, therefore less useful; from the same place.

23. FOR TANNING.

- 313 Compact Limestone with petrifications; from Jena.

24. FOR DYEING.

- 314 A piece of Alum.

25. FOR

25. FOR FIRE WORKS.

- 315 A piece of cane Sulphur; from Geier.

26. FOR THE MATERIA MEDICA.

- 316 A piece of Alum.
 317 Mercury sublimate, 1 grain.
 318 Twelve round tablets of the so called Terra Sigillata.

27. FOR THE BLEACHING OF LINEN.

- 319 A piece of Mineral Coal; from England.
 320 Defulphurated Mineral Coal; from the same place.

28. FOR CLOTH AND PAPER.

- 321 Amianthus; from Russia.
 322 Different samples of Stone Pasteboard and Stone Paper; from Hungary.

THIRD CLASS.

MINERALS FROM WHICH METALS, SALTS,
&c. ARE PREPARED.

A. METALS.

I. FOR OBTAINING GOLD.

- 323 Diffeminated Native Gold with auriferous Blende and Galena; from Hungary.
 324 Vitreous Silver Ore which contains Gold, in Quartz; from the same place.
 325 Auriferous Copper Pyrites, with some Blende in Quartz; from the same place.

Rem. In this also, very finely diffeminated Native Gold is observable.

326 Auriferous

- 326 Auriferous Copper Pyrites with sparry Iron Ore in Hornstone; from the same place.
- 327 Crystallized auriferous Martial Pyrites, upon Porphyry; from the same place.
- 328 Massive ditto, mixed with Blende less rich in Gold; from the same place.
- 329 Massive and coarsely disseminated auriferous Martial Pyrites in Argillite; from Saltzburg.
- 330 Auriferous compact brown Ironstone with Quartz; from Catharinenburg in Siberia.
- 331 Gold Sand; from the Rhine.
- 332 Yellow Gold Sand; from Silesia.

2. FOR OBTAINING SILVER.

a. The Minerals themselves.

- 333 Native Silver with some vitreous Silver and a little intermixed Hornstone; from Schneeberg.
- 334 Capillary Native Silver, a little brown superficially; mixed with vitreous Silver Ore and a good deal of Quartz; from the same place.
- 335 Antimoniated Silver Ore with Copper Pyrites in a somewhat earthy Quartz; from Kremniz in Lower Hungary.
- 336 Dark red Silver Ore with Siderocalcite, much Galena and Copper Pyrites, as also brown Blende, upon Gneifs; from Freiberg.
- 337 Light red Silver Ore with intermixed Martial Pyrites; from Johangeorgenstadt.
- 338 Massive light grey Silver Ore in Galena which is mixed with Martial Pyrites and Siderocalcite; from Freiberg.
- 339 Argentiferous Galena, with disseminated light grey Silver Ore and much intermixed Martial Pyrites, as also adhering Gneifs; from the same place.
- 340 Argentiferous Massive Copper Pyrites with adhering Baroselenite; from the Lorenz Gegentrum near Freiberg.
- 341 Argentiferous grey Copper Ore, with adhering Argillite; from Gersdorf.

342 Argentiferous

- 342 Argentiferous Massive Martial Pyrites, with intermixed black Blende; from the Kühschacht near Freiberg.

b. Products of the Smelting Process.

- 343 An Halsbrück Raw-flag.
 344 A Phosphorescent Zinc Cadmia; from the Freiberg Smelting works.
 345 Very regularly cubic crystallized Lead Cadmia; from the Hartz Lead-works.
 346 A quarter of an ounce of cuppelled Silver; from Freiberg.
 347 Some of the Hearth; from Freiberg.
 348 A globule of fine Silver; from the Freiberg Refinery.
 349 Quicksilver Amalgam; from Hungary.

3. FOR OBTAINING MERCURY.

- 350 Native Mercury in Hornstone; from Deuxponts.
 351 Dark red Cinnabar; from the same place.
 352 Bright red Cinnabar in drusy Quartz; from the same place.
 353 A roasted Mercurial Ore; from the same place.

4. FOR OBTAINING LEAD.

- 354 Massive Galena with adhering Iron Ochre; from Tarnowiz in Silesia.
 355 Compact Galena; from the Hartz.

5. FOR OBTAINING COPPER.

a. The Minerals themselves.

- 356 An horse shoe coated with precipitated Copper; from Hungary.
 357 Massive and coarsely disseminated vitreous Copper Ore, with Copper Pyrites in a sandy Ironshot Rockstone; from the Uralian Mountains in Siberia.
 358 Vitreous Copper Ore with Calcareous Spar, upon Bituminous Marlite; from Mansfeld.

359 Superficial

- 359 Superficial purple Copper Ore upon Bituminous Marlite; from Sangerhausen.
- 360 Very thick superficial Copper Pyrites, upon indurated Marle, with disseminated Galena.
- 361 Moderately thick superficial Copper Pyrites, upon Bituminous Marlite; from Eisleben.
- 362 Thin, but yet abundant superficial Copper Pyrites upon the same sort of Stone; from the same place.
- 363 Very thin superficial Copper Pyrites, with traversing slips of Calcareous Spar, upon Bituminous Marlite; from the same place.
- 364 Disseminated Copper Pyrites in the same sort of Stone; from Ringelsdorf in Lower Hesse.
- 365 Superficial blue Copper Ore upon Argillite which is mixed with Calcareous Spar; from Saalfeld.
- 366 Minute botryoidal blue Copper Ore, upon compact Malachite; from Hungary.
- 367 A compound of Ironshot Mountain green and blue Copper Ore; from the same place.
- 368 Superficial Mountain green and Malachite, upon petrified Wood; from Catharinenburg in Siberia.
- 369 Very thin superficial Mountain green upon Bituminous Marlite; from Mansfeld.

b. Products of the Mansfeld Smelting Houses.

- 370 Roasted Copper Slate.
- 371 The same, which is evidently more strongly roasted,
- 372 Very strongly roasted Copper Slate.
- 373 Still more strongly roasted Copper Slate.
- 374 Copper Stone.
- 375 A Crude Slag, from the smelted Slate, quite black, glassy and compact.
- 376 Another with round cavities.
- 377 A third, with bluish and verdigris green streaks.
- 378 Dross (Gekröz); from the Crude Furnace.
- 379 The same, upon still visible Copper Slate.
- 380 The same, upon Copper Slate still less altered.
- 381 Roasted Copper Stone, or the so named Garrost, *i. e.* perfectly roasted.
- 382 Black Copper.
- 383 Another kind of (Zakkigem) black Copper.

- 384 Regule, Dünstein or the so named Spürstein.
- 385 Another sort of more solid and coarse fibrous Regule.
- 386 Still a little more compact Regule.
- 387 A black Copper slag.
- 388 Another lighter and more porous kind of this slag.
- 389 Dross; from the black Copper Furnace.
- 390 Black Copper; from Clausthal.
- 391 Stuff, which subsided to the bottom of the Furnace at that place.
- 392 Proof grains of black Copper.
- 393 Two blanks (for coining) of perfect Copper (gar-kupfer).
- 394 A tolerably thick plate of perfect Copper.
- 395 Somewhat thinner ditto, of an higher colour.
- 396 Granulated perfect Copper.

6. FOR OBTAINING IRON.

a. Minerals for that purpose.

- 397 A piece of quite Massive Magnetic Ironstone; from Sweden.
- 398 Fine-grained Magnetic Iron Ore, mixed with much indurated Clay; from the same place.
- 399 Coarsely disseminated Magnetic Iron Ore in Quartz; from Ehrenfriedersdorf in the Erzgebirge.
- 400 Brown sparry Iron Ore, with intermixed Barosele-nite; from Saalfeld.

Rem. It affords there a malleable Iron.

- 401 White sparry Iron Ore, with a little intermixed Siderocalcite; from Hüttenberg in Carinthia.
- 402 Compact red Ironstone; from Schneeberg.
- 403 Red Hæmatites, with adhering compact red Ironstone; from Eibenstock.
- 404 Reniform brown Hæmatites; from Kamsdorf.
- 405 A very good lowland argillaceous Ironstone; from the Marquisate of Brandenburg.

406 Ditto,

- 406 Ditto, but of a brighter brown colour; from Kemniz near Triebel in Lower Lusatia.

Rem. It contains 38 per cent of Iron.

- 407 The same rather darker, and as rich; from the same place.

- 408 Lowland argillaceous Ironstone mixed with much Iron Ochre; from Bukau, there.

Rem. It contains 33 per cent and forms a fine vein.

- 409 The same, somewhat lighter; from Zschecheln in Lower Lusatia.

Rem. This contains two or three and thirty per cent.

b. Products.

- 410 Semi-perfect crude Iron, upon which much Plumbago lays.

- 411 Crude Iron broken, of a much brighter colour.

- 412 Good crude Iron, whose colour and lustre is intermediate between the other two.

Rem. These three are from the Knuder Works in Upper Lusatia. Vide Leske's Tour through Saxony. S. 126.

- 413 Slag; from the Furnace at that place.

c. Appendix, from the Works at Schnepförtel.

Leske, a. a. O. S. 287.

α. α. Raw Materials

- 414 A very good dark brown Lowland Argillaceous Ironstone.

- 415 A ditto, traversed by numerous cavities.

- 416 Ditto, mixed with more Sand.

- 417 A ditto, mixed with a large quantity of Sand.

- 418 Very sandy ditto.

- 419 Very much decayed Lowland Argillaceous Ironstone.

β. β. Products.

- 420 Moderately dark crude Iron.
- 421 Somewhat brighter crude Iron of a small grain.
- 422 Similar crude Iron, still of a little brighter grey colour.
- 423 Crude Iron of a moderately small grain.
- 424 The same of a fine grain.
- 425 The same of a very fine grain.
- 426 Slag ; from this Work.
- 427 Two pieces of hoop Iron.
- 428 Granulated Iron.
- 429 A sky blue passing into verdigris green Iron slag.
- 430 From the bluish green passing into yellowish white Iron slag.

7. FOR PRODUCING TIN.

- 431 Crystallized Tinstone in Quartz which is mixed with some Talc and Arsenical Pyrites ; from Ehrenfriedersdorf.
- 432 Smaller crystallized Tinstone upon Gneiss ; from the same place.
- 433 Disseminated Tinstone in Garnet which is mixed with some Hornblende and indurated Ironshot Clay, as also Quartz ; from the same place.

8. FOR ZINC AND BRASS MAKING.

- 434 Yellowish grey Calamine ; from Westphalia.
- 435 The same pretty strongly mixed with Iron Ochre ; from Olkutsch in Poland.
- 436 Calamine mixed with a large proportion of Iron Ochre, and apparently somewhat roasted ; from the same place.
- 437 Strongly roasted Calamine ; from Aix la Chappelle.
- 438 Washed Calamine ; from Carinthia.
- 439 A Zinc Globule.

9. BISMUTH.

9. BISMUTH.

- 440 Native Bismuth with white Cobalt Ore and adhering Hornstone, as also superficial cobaltic incrustations; from Schneeberg.

10. ARSENIC.

- 441 a Massive and coarsely disseminated Arsenical Pyrites in Quartz; from Hungary.
 441 b Orpiment; from the same place.

B. S A L T S.

1. VITRIOL.

- 442 Copper Pyrites with intermixed sparry Iron Ore; from Rammelsberg.
 443 Blue Vitriol of Copper; from the same place.
 444 Massive and crystallized Martial Pyrites; from Geier.
 445 Massive Martial Pyrites mixed with much black Blende and some Siderocalcite; from Freiberg.

Rem. This is not near so good for the purpose as the preceding one.

- 446 Roasted pyritical Slate.
 447 The same, with a very large quantity of Vitriol efflorescing from the decomposition.
 448 Artificial Martial Vitriol.
 449 The same adulterated with much Vitriol of Zinc.
 450 The same, with many other adhering impurities.
 451 White Vitriol of Zinc.
 452 The same very impure in many places.
 453 Reddish impure Vitriol.
 454 Yellowish impure Vitriol.
 455 Vitriol in which the mixture of Zinc and Martial Vitriol is obvious.
 456 Columnar sulphur which is obtained from the Vitriol works as a secondary product.

Rem. From No. 446. are all from Rammelsberg.

2. ALUM.

2. ALUM.

- 457 Roasted Alum Slate; from Sweden.
 458 A piece of artificial Alum.
 459 Artificial Alum, very beautifully crystallized in Octohædrons piled upon one another in rows.

FOURTH CLASS.

I. FLUXES.

1. FOR COPPER SMELTING.

- 460 A piece of Fluor Spar; from Strassberg in the Hartz.
 461 Compact Limestone.

2. FOR IRON SMELTING.

- 462 Granular Limestone.
 463 Very Ironshot granular Limestone, but at the same time somewhat earthy, therefore not so good as the preceding.
 464 Hornblende Slate with numerous inlaying Garnets; from Geier.
 465 Basalt with inlaying Hornblende.

Rem. Both the latter are pre-eminently well adapted for this use, on account of the ferruginous contents of the Hornblende.

II. FOR THE CONSTRUCTION OF FURNACES.

1. EXAMPLES OF GOOD STONE.

- 466 Very Quartzzy Granite; from Altenberg.
 467 Tolerably firm Gneifs; from Lösniz near Freiberg.
 468 Compact grey Sandstone which does not in the least effervesce with acids.

2. EXAMPLES

2. *EXAMPLES OF INDIFFERENT STONE.*

- 469 Slightly fused Sandstone; from the high furnace of Keule.
470 Much more strongly fused Sandstone; from the same place.
471 Still more strongly fused, in some parts semi-vitrified Sandstone; from the same place.
472 Completely fused Sandstone; from the same place.

III. MEANS OF FUSION.

- 473 Slate Coal with inlaying Pitch Coal; from Westphalia.
474 Mineral Coal with much inlaying Calcareous Spar; from Wettin in the circle of Saal.

Rem. A Mineral Coal which is circumstanced throughout as the latter would be unfit for this use, but the sort No. 473, when it is desulphurated proves excellent for the fusion of Copper and Iron.

END OF THE OECONOMICAL COLLECTION.

A SYSTEMATIC INDEX

TO THE LESKEAN MUSEUM.

I. CHARACTERISTIC COLLECTION. K.

A. COMMON EXTERNAL GENERIC CHARACTERS.

A. A. For the Determination of Colours.

		Page
1	WHITE	3
2	Grey	4
3	Black	5
4	Blue	6
5	Green	7
6	Yellow	8
7	Red	
8	Brown	10

B. PARTICULAR EXTERNAL GENERIC CHARACTERS.

A. A. Solid Fossils.

a. The External Appearance.

a. a. THE EXTERNAL SHAPE.

1	Common External Shape	11
2	Particular external Shape	12
3	Regular External Shape	15
4	Extraneous External Shape	20

4 N

b. b. THE

	<i>b. b. THE EXTERNAL SURFACE.</i>	Page 22
	<i>c. c. THE EXTERNAL LUSTRE.</i>	
1	The Intensity of the Lustre	
2	Sort of Lustre	23
	<i>d. d. THE INTERNAL LUSTRE.</i>	
1	The Intensity of the Lustre	
2	Sort of Lustre	24
	<i>e. e. THE FRACTURE.</i>	
1	Compact Fracture	
2	Fibrous Fracture	25
3	Striated Fracture	26
4	Foliated Fracture	27
5	Slaty Fracture.	
	<i>f. f. SHAPE OF THE FRAGMENTS.</i>	
1	Regular fragments	28
2	Irregular fragments	
	<i>g. g. SHAPE OF THE DISTINCT CONCRE-</i> <i>TIONS.</i>	29
1	Granular Distinct Concretions	
2	Lamellar Distinct Concretions	30
3	Columnar Distinct Concretions	
	<i>h. h. THE TRANSPARENCY.</i>	31
	<i>i. i. THE STREAK.</i>	
1	Similar Streak	
2	Different Streaks	
	<i>k. k. THE STAIN.</i>	32
	<i>l. l. THE HARDNESS.</i>	
1	Hard	
2	Half Hard	
3	Tender or Soft	33
4	Very Soft or Tender	

m. m. THE

	Page
<i>m. m.</i> THE COHESION.	33
<i>n. n.</i> THE FLEXIBILITY.	
<i>o. o.</i> ADHESION TO THE TONGUE.	
<i>p. p.</i> THE SOUND.	
<i>q. q.</i> CRACKING NOISE OF PARTICLES WHEN BROKE	34
B. B. Particular generic Characters of the Friable Fossils.	
a. The Lustre.	
1 Intensity of the Lustre	
2 Sort of Lustre	
b. The appearance of the Particles.	
c. The Stain.	35
d. The Degree of Friability.	
e. Adhesion to the Tongue.	
C. C. Particular generic Characters of the Fluid Fossils.	
a. The Lustre	
C. REMAINING COMMON GENERIC CHARACTERS.	
a. The Unctuousity	
b. The Coldness	36
c. The Density	
d. The Smell	
1 Of Itself.	
2 By Friction	
e. The Taste	37

II. SYSTEMATIC COLLECTION. O. Page
38

FIRST CLASS.

Earths and Stones.

1st. SILICEOUS GENUS.

1	Diamond	
2	Chrysoberyll	39
3	Jargon	
4	Hyacinth	40
5	Chrysolite	41
6	Garnet	42
7	Ruby	45
8	Sapphire	46
9	Topaz	47
	A. <i>Common Topaz.</i>	
	B. <i>Aqua Marine.</i>	49
10	Emerald	
11	Beryll	50
12	Schörl	51
	A. <i>Black Schörl.</i>	
	B. <i>Tourmaline.</i>	53
13	Schorlite	54
14	Thumerstone	
15	Quartz.	
	A. <i>Amethyst.</i>	
	B. <i>Rock Crystal.</i>	57
	C. <i>Common Quartz.</i>	65
	D. <i>Prasium.</i>	75
16	Hornstone	
17	Flint	77
18	Calcedony	79
	B. <i>Carnelian.</i>	

	Page
B. <i>Carnelian</i> .	83
19 Heliotropium	85
20 Chrysoprasium	
21 Schistose Hornstone	86
A. <i>Siliceous Schistus</i> .	
B. <i>Basanite</i> .	87
22 Obsidian	
23 Cat's Eye	88
24 Zeolite	
25 Lapis Lazuli	91
26 Woodstone	
27 Agate (as an Appendix.)	93
A. <i>Zoned Agate</i> .	
B. <i>Fortification Agate</i>	
C. <i>Ring Agate</i>	96
D. <i>Landscape Agate</i>	97
E. <i>Moss Agate</i>	98
F. <i>Dotted Agate</i>	99
G. <i>Stellated Agate</i>	
H. <i>Brecciated Agate</i>	
I. <i>Jasp' Agate</i>	100

2nd ARGILLACEOUS GENUS.

1 Native Argill	
2 Porcelain Clay	101
3 Common Clay	
A. <i>Potter's Clay</i>	
B. <i>Indurated Clay</i>	102
C. <i>Slate Clay</i>	
4 Jasper	103
A. <i>Egyptian</i>	

	Page
A. <i>Egyptian Jasper</i>	103
B. <i>Striped Jasper</i>	104
C. <i>Porcellanite</i>	105
D. <i>Common Jasper.</i>	
5 Opal	107
A. <i>Oriental Opal</i>	
B. <i>Common Opal</i>	
C. <i>Semi Opal</i>	108
D. <i>Ligniform Opal</i>	109
6 Pitchstone	110
7 Felspar	111
A. <i>Common Felspar.</i>	
B. <i>Petrilite</i>	113
C. <i>Labradore Stone</i>	
D. <i>Moon Stone</i>	115
8 Argillite	116
9 Bituminous Shale	
10 Aluminous Earth	117
11 Aluminous Slate,	
A. <i>Common Aluminous Slate</i>	
B. <i>Glossy Aluminous Slate</i>	118
12 Rock Allum	
13 Black Chalk	
14 Reddle	
15 Novaculite	
16 Tripoli	119
17 Mica	
18 Green Earth	121
19 Calcholite	122
20 Hornblende	123
A. <i>Common Hornblende</i>	
B. <i>Schistose Hornblende or Hornblende Slate</i>	124
C. <i>Resplendent</i>	

	Page
C. <i>Resplendent Hornblende</i>	124
D. <i>Basaltine</i>	125
21 Wacken	
22 Trap or Basalt	
23 Terras	127
24 Lava	
25 Pumice	128
26 Lithomarga	
A. <i>Friable Lithomarga</i>	
B. <i>Indurated Lithomarga</i>	
26 Mountain Soap	130
27 Yellow Earth	

3rd. MURIATIC GENUS.

I Steatites	
A. <i>Common Steatites</i>	
B. <i>Foliated Steatites</i>	131
2 Jade	132
3 Fuller's Earth	
4 Bole	133
5 Serpentine	
6 Talc	134
A. <i>Talcite.</i>	
B. <i>Common Talc</i>	135
C. <i>Pot Stone</i>	
7 Asbestus	
A. <i>Suber Montanum</i>	
B. <i>Amianthus</i>	136
C. <i>Common Asbestus</i>	137
8 Sappare	138
9 Actynolite	

A. *Asbestoidal*

	Page
A. <i>Asbestoidal Actynolite</i>	138
B. <i>Common Actynolite</i>	
C. <i>Glassy Actynolite</i>	140

4th. CALCAREOUS GENUS.

1	Agaric Mineral	
2	Chalk	
3	Limestone	141
	A. <i>Compact Limestone</i>	
	B. <i>Granular Limestone</i>	143
	C. <i>Calcareous Spar</i>	144
	α. <i>Single Hexhædral Pyramids</i>	146
	β. <i>Double Hexhædral Pyramids</i>	149
	γ. <i>Hexhædral Prisms</i>	150
	δ. <i>Hexhædral Tables</i>	155
	ε. <i>Lenticular</i>	156
	ζ. <i>Double Trihædral Pyramids</i>	157
	η. <i>Rhombs</i>	158
	θ. <i>The Cube</i>	159
	ι. <i>Single Trihædral Pyramids</i>	160
	κ. <i>Double Trihædral Pyramids</i>	161
	C. <i>Striated Limestone</i>	163
	D. <i>Calcareous Sinter</i>	164
	E. <i>Oviform Limestone</i>	167
4	Argentine	168
5	Siderocalcite	
6	Swine Stone	169
7	Liver Stone	170
8	Marle	
	A. <i>Earthy Marle</i>	
	B. <i>Indurated Marle</i>	
9	Bituminous Marlite	171
10	Apatite	172
11	Gypsum	173
	A. <i>Compact</i>	

	Page
A. <i>Compact Gypsum</i>	
B. <i>Foliated Gypsum</i>	
C. <i>Fibrous Gypsum</i>	175
12 <i>Specular Gypsum</i>	
α . Prisms	
β . Rhombs	
γ . Lenfes	177
13 <i>Fluor</i>	178
A. <i>Compact Fluor</i>	
B. <i>Fluor Spar</i>	179
α . Cube	182
β . Octohædron	184
$\alpha. \alpha$. The Columnar	185
$\beta. \beta$. The Granular	
$\gamma. \gamma$. The Lamellar,	
5th. BARYTIC GENUS	186
I Baroselenite	
A. <i>Earthy Baroselenite</i>	
B. <i>Compact Baroselenite</i>	
C. <i>Foliated Baroselenite</i>	187
D. <i>Lamellar Baroselenite</i>	188
E. <i>Bolognian Spar</i>	198

SECOND CLASS.

SALTS.

I. VITRIOLIC SALTS.

1 Native Vitriol	
2 Capillary Salts	199
3 Stone Butter	

4 O

II. MURIATIC

	Page
II. MURIATIC SALTS.	199
1 Common Salt	
A. <i>Lamellar Common Salt</i>	
B. <i>Fibrous Common Salt</i>	201
2 Native Sal Ammoniac	202
III. BORACIC SALTS.	
1 Tincal	
IV. ALCALINE SALTS.	203
1 Native Mineral Alkali	

THIRD CLASS.

INFLAMMABLE SUBSTANCES.

I. BITUMINOUS.

1 Mineral Pitch	
A. <i>Cohesive</i>	
B. <i>Semi Compact</i>	
C. <i>Compact</i>	
2 Mineral Coal	204
A. <i>Pitch Coal</i>	
B. <i>Slaty Coal</i>	
C. <i>Shining Coal</i>	205
3 Bituminous Wood	
A. <i>Perfect Bituminous Wood</i>	
B. <i>Earthy Bituminous Wood</i>	206
4 Amber	
A. <i>White Amber</i>	
B. <i>Yellow Amber</i>	
C. <i>Mellitite</i>	207

II. SULPHUREOUS.

I Native

	Page
i Native Sulphur	199

III. PLOMBAGINOUS. 208

i Graphite	
------------	--

FOURTH CLASS.

METALIC SUBSTANCES.

I. PLATINA.

i Native Platina	
------------------	--

II. GOLD 209

i Native Gold	
---------------	--

A. Gold-Yellow Native Gold	
----------------------------	--

B. Brass-Yellow Native Gold	210
---------------------------------------	-----

C. Grey-Yellow Native Gold	
----------------------------	--

2 Gold Ore of Nagaya	211
--------------------------------	-----

III. MERCURY.

1 Native Mercury	
------------------	--

2 Natural Amalgama	212
------------------------------	-----

3 Corneous Mercurial Ore	
--------------------------	--

4 Hepatic Mercurial Ore	213
-----------------------------------	-----

A. Compact	
------------	--

B. Slaty	
----------	--

5 Cinnabar	214
----------------------	-----

A. Common Cinnabar	
--------------------	--

B. Bright Red Cinnabar	217
----------------------------------	-----

	Page
IV. SILVER	219
1 Native Silver	
2 Arsenicated Native Silver	223
3 Corneous Silver Ore	
4 Sooty Silver Ore	224
5 Vitreous Silver Ore	
6 Antimoniated Silver Ore	228
7 Red Silver Ore	230
A. <i>Dark Red</i>	
B. <i>Bright Red Silver Ore</i>	233
8 Light Grey Silver Ore	236
V. COPPER	238
1 Native Copper	
2 Vitreous Copper Ore	240
A. <i>Compact</i>	
B. <i>Foliated Vitreous Copper Ore</i>	241
3 Purple Copper Ore	242
4 Yellow Copper Ore, or Copper Pyrites	243
5 White Copper Ore	247
6 Grey Copper Ore	
7 Black Copper Ore	251
8 Red Copper Ore	252
A. <i>Compact Red Copper Ore</i>	
B. <i>Foliated Red Copper Ore</i>	
C. <i>Fibrous Red Copper Ore</i>	253
9 Tile Copper Ore	
A. <i>Earthy Tile Copper Ore</i>	
B. <i>Indurated Tile Copper Ore</i>	254
10 Blue Copper Ore	255
A. <i>Earthy</i>	

	Page
A. <i>Earthy Blue Copper Ore</i>	255
B. <i>Striated Blue Copper Ore</i>	256
11 Malachite	258
A. <i>Fibrous Malachite</i>	
B. <i>Compact Malachite</i>	261
12 Mountain Green	262
13 Ironshot Mountain Green	263
A. <i>Earthy Ironshot Mountain Green</i>	
B. <i>Glassy Ironshot Mountain Green</i>	264

VI. IRON.

1 Native Iron	
2 Martial Pyrites	
A. <i>Common Martial Pyrites</i>	
B. <i>Striated Pyrites</i>	270
C. <i>Hepatic Pyrites</i>	272
D. <i>Capillary Pyrites</i>	275
3 Magnetic Martial Pyrites	276
4 Magnetic Iron Stone	
A. <i>Fibrous</i>	
B. <i>Common</i>	277
C. <i>Magnetic Iron Sand</i>	279
5 Specular Iron Stone	
A. <i>Common Specular Iron Ore</i>	
B. <i>Micaceous Iron Ore</i>	283
6 Red Iron Stone	284
A. <i>Red</i>	

	Page
A. <i>Red Scaly Iron Ore</i>	284
B. <i>Compact Red Iron Stone</i>	
C. <i>Red Hæmatites</i>	286
7 <i>Brown Iron Stone</i>	288
A. <i>Brown Scaly Iron Ore</i>	
B. <i>Compact Brown Iron Stone</i>	289
C. <i>Brown Hæmatites</i>	
8 <i>Sparry Iron Ore</i>	292
9 <i>Argillaceous Iron Ore</i>	296
A. <i>Common Argillaceous Iron Stone</i>	
B. <i>Columnar Argillaceous Iron Stone</i>	
C. <i>Acinose Argillaceous Iron Stone</i>	297
D. <i>Pisiform Iron Ore</i>	
E. <i>Reniform Iron Ore</i>	
10 <i>Lowland Iron Ore</i>	298
A. <i>Swampy Iron Ore</i>	
B. <i>Meadow Iron Ore</i>	
11 <i>Blue Martial Earth</i>	
12 <i>Yellow Iron Ochre</i>	
13 <i>Emery</i>	299
14 <i>Pechblende</i>	

VII. LEAD.

1 <i>Galena</i>	300
A. <i>Common Galena</i>	
B. <i>Compact Galena</i>	307
2 <i>Blue Lead Ore</i>	308
3 <i>Brown Lead Ore</i>	
10 <i>Earthy</i>	

	Page
4 Black Lead Ore	309
5 White Lead Ore	310
6 Green Lead Ore	315
7 Red Lead Spar	317
8 Yellow Molybdenated Lead Ore	
9 Earthy Yellow Lead Ore	318
A. <i>Pulverulent Earthy Yellow Lead Ore</i>	
B. <i>Indurated Earthy Yellow Lead Ore</i>	319
10 Earthy Grey Lead Ore	
A. <i>Pulverulent Earthy Grey Lead Ore</i>	
B. <i>Indurated Earthy Grey Lead Ore</i>	
11 Earthy Red Lead Ore	320

VIII. TIN.

1 Tin Stone	
-------------	--

IX. BISMUTH 328

1 Native Bismuth	
2 Sulphurated Bismuth	330
3 Bismuth Ochre	

X. ZINC 331

1 Blende	
A. <i>Yellow Blende</i>	
B. <i>Brown Blende</i>	332
C. <i>Black Blende</i>	334
2 Calamine	335

XI. ANTIMONY 337

1 Grey Antimonial Ore	
A. <i>Compact</i>	

	Page
A. <i>Compact</i>	337
B. <i>Foliated</i>	
C. <i>Striated</i>	338
D. <i>Plumose Antimonial Ore</i>	339
2 Red Antimonial Ore	340
3 Antimonial Ochre	341
4 Light Lamellar Silver Ore	

XII. NICKEL 342

- 1 Kupfernickel
- 2 Nickel Ochre

XIII. COBALT 343

1 Grey Cobalt Ore	
2 White Cobalt Ore	345
3 Black Cobalt Ore	348
A. <i>Loose</i>	
B. <i>Indurated</i>	349
4 Brown Cobalt Ore	350
5 Yellow Cobalt Ore.	351
6 Red Cobalt Ore	
A. <i>Cobaltic Incrustation</i>	
B. <i>Cobaltic Germinations</i>	352

XIV. MANGANESE 356

1 Grey Manganesian Ore	
2 Black Manganesian Ore	359
3 Red Manganesian Ore	360
4 White Manganesian Ore	361

XV. MOLYB.

XV. MOLYBDÆNITE.

I	Molybdæna	361
---	-----------	-----

XVI. ARSENIC.

I	Native Arsenic	
2	Arsenical Pyrites	363
	A. <i>Common Arsenical Pyrites</i>	
	B. <i>Argentiferous Arsenical Pyrites</i>	365
3	Native Calx of Arsenic	366
4	Sulphurated Arsenic	367
	A. <i>Orpiment</i>	
	B. <i>Realgar</i>	

XVII. TUNGSTENITE

368

I	Tungsten
2	Wolfram

III. GEOLOGICAL COLLECTION G.

FIRST CLASS.

PRIMÆVAL ROCKS.

I	Granite	373
	A. <i>Agreement of the Constituent Parts</i>	
	B. <i>Colour of the Constituent Parts</i>	374
	C. <i>Proportion of the Constituent Parts</i> <i>(With respect to Quantity)</i>	375
	D. <i>Transitions of Granite</i>	376
	E. <i>Decomposition of Granite</i>	
	4 P	
	F. <i>Mixed</i>	

	Page
F. <i>Mixed with other Fossils</i>	377
G. <i>Mineral and Fossil Veins traversing Granite</i>	
H. <i>With other Rocks</i>	378
2 Sienite	
A. <i>Varieties arising from the Grain</i>	
B. <i>Varieties according to the proportion of the Constituent Parts</i>	379
<i>Decomposition of Sienite</i>	
3 Gneiss	
A. <i>Varieties according to the thickness of the Fracture</i>	
B. <i>Varieties with respect to the direction of the Fracture</i>	
C. <i>Varieties according to the Proportion of the Constituent Parts</i>	380
D. <i>Transitions</i>	
E. <i>Decomposed Gneiss</i>	
F. <i>With superficial Ore</i>	
G. <i>Ores and Veinstones which occur in Gneiss</i>	
H. <i>Stones occurring in extensive layers in Gneiss</i>	382
4 Schistose Mica	
5 Schistose Hornblende	383
6 Argillite	
A. <i>Common Argillite</i>	
B. <i>Novaculite</i>	386
7 Siliceous Schistus	
8 Horn Porphyry	
A. <i>Varieties of the Basis</i>	
B. <i>Varieties with respect to the other Con- stituent Parts</i>	387
C. <i>Decomposed</i>	

	Page
C. <i>Decomposed Horn Porphyry</i>	387
D. <i>Other remarkable Particulars</i>	388
9 <i>Porphyry</i>	
A. <i>With an Argillaceous Basis</i>	
B. <i>With a Jasper Basis</i>	389
C. <i>With an Hornstone Basis</i>	390
D. <i>Quartz Porphyry</i>	392
E. <i>Pitchstone Porphyry</i>	393
10 <i>Trap</i>	
A. <i>Genuine Trap</i>	
B. <i>Semi-Trap?</i>	394
C. <i>Grünstein?</i>	395
12 <i>Basalt</i>	
A. <i>Varieties in the Basis</i>	
B. <i>Varieties arising from the intermixed particles</i>	396
C. <i>Transitions</i>	397
D. <i>Extraordinary Admixtures</i>	
13 <i>Amygdaloid</i>	
A. <i>Basaltic Amygdaloid</i>	
B. <i>Common Amygdaloid</i>	398
14 <i>Serpentine</i>	399
15 <i>Primitive Limestone</i>	400
16 <i>Quartz</i>	401
17 <i>Topaz Rock</i>	

SECOND CLASS.

MARIGENOUS ROCKS.

1	Marigenous Argillite	401
	A. <i>Common Marigenous Argillite</i>	
	B. <i>Aluminous Slate</i>	402
2	Marigenous Limestone	
	A. <i>Compact Limestone</i>	
	B. <i>Swine-Stone</i>	424
	C. <i>Marle</i>	
	D. <i>Bituminous Marlite</i>	426
2	Sandstone	427
	B. <i>Grey Wacke or Rubble Stone</i>	432
	C. <i>Pudding Stone</i>	433
3	Mineral Coal Strata	434
	A. <i>Slate Clay</i>	
	B. <i>Mineral Coal itself</i>	435
4	Chalk Strata	
	A. <i>Chalk itself</i>	
	B. <i>Flint</i>	436
5	Common Salt Strata	439
6	Gypsum Strata	
7	Iron Clay Strata	
	A. <i>Iron Clay itself</i>	
	B. <i>Loam</i>	440
	C. <i>Bituminous Shale</i>	441
8	Calamine Strata	
9	Martial	

9 Martial Pyrites Strata

Page

441

APPENDIX TO THE PRIMÆVAL
AND MARIGENOUS ROCKS

442

A. *For the natural history of Veins in the
former*

B. *For the natural history of Veins in the
Marigenous Rocks*

THIRD CLASS.

VOLCANIC ROCKS.

I. GENUINE VOLCANIC PRODUCTIONS.

1 Lava

2 Pumice

443

II. PSEUDO VOLCANIC ROCKS.

FOURTH CLASS.

PRODUCTIONS OF ALLUVIAL MOUNTAINS.

1 Stream-work Minerals

2 Lowland Fossils

A. *Sand Land*

W O O D

445

B. *Loamland*

449

C. *Moorland*

APPENDIX

APPENDIX TO THE SYTEMATIC AND GEOLOGICAL COLLECTIONS.

ILLUSTRATING THE PRODUCTIONS OF FOSSILS.

	Page
1 Manner of the Production	451
2 Origin of the Production.	
3 Relative age of the Production.	452
A. <i>Contemporaneous</i>	
B. <i>At different Periods.</i>	
C. <i>Uncertain.</i>	454
4 Mineralogical Deception	

IV. GEOGRAPHICAL COLLECTION. S.

I. THE AMERICAN HEMISPHERE 547

- A. *The West Indies.*
- B. *South America.*
- C. *North America.*

II. ASIA. 458

- A. *From the Islands.*
- B. *Arabia.*
- C. *Persia.*
- D. *China.*
- E. *Russian Asia or Siberia.*

III. EUROPE. 462

I Russian Division

2 Norway

		Page
2	Norway	466
3	Sweden	468
	A. <i>West Gothland.</i>	
	B. <i>The Parish of Alseda in Oeland, in the Goth-</i> <i>land district.</i>	
	C. <i>Westmanland.</i>	469
	D. <i>Upland.</i>	
	E. <i>The Province of Stora and the Copperberg in</i> <i>Dalecarlia.</i>	
	F. <i>Lapland.</i>	470
4	Prussia	
5	Poland	
	A. <i>Lithuania.</i>	
	B. <i>Podolia.</i>	474
6	Gallicia and Lodomiria	
7	Hungary.	475
	A. <i>The Carpathian Mountains.</i>	
	B. <i>Schmolniz in the Kaschau district.</i>	
	C. <i>Kremniz in the Barcher Country. (Lower Hun-</i> <i>gary.)</i>	476
	D. <i>Herrngund in the upper district of the Neusohl</i> <i>County</i>	
	E. <i>Holter County</i>	
	F. <i>The Bannat</i>	479
	G. <i>Transylvania</i>	
8	Italy	480
	A. <i>The Islands.</i>	481
	B. <i>The</i>	

	Page
B. <i>The Continent</i> . . .	481
9 Switzerland . . .	486
10 Great-Britain	
A. <i>Scotland.</i>	
B. <i>England.</i> . . .	487
11 France . . .	489
12 Spain	
13 Portugal	
14 Germany	
A. <i>The Schwartzwald Mountains</i>	
C. <i>The Fichtel Mountains in Franconia, the Upper Palatinate, and the Upper part of Thuringia, extending to the Saal</i> . . .	493
D. <i>Bohemian and Moravian Mountains</i>	500
E. <i>Silesia with the flat country and the Margraviate of Brandenburg.</i> . . .	502
F. <i>The Marigenous Mountains of Pomerania, Mecklenberg, Schleswig, &c.</i> . . .	503
G. <i>The Hartz Mountains, Flat country on this side the Elbe, Magdeburg, Marigenous Mountains of Mansfeld to the Saal.</i>	
H. <i>The Hessian Mountains with the Archbishoprick of Fulda, and the Vogelsgebirge as far as the Main</i> . . .	505
I. <i>The Nassavian Rhine Mountains, Westerwald, Westphalia, as also Cologne with Treves beyond the Rhine</i> . . .	508
K. <i>The Mountains beyond the Main, the Palatinate</i>	

	Page
<i>nate and the Dutchy of Deux Ponts; with Treves on the Moselle and on this side the Rhine</i>	509
L. <i>Austrian and United Netherlands</i>	510
M. <i>The Saxon Mineral and Upper Lusatian Moun- tains</i>	511

IV. AFRICA. 603

V. ŒCONOMICAL COLLECTON. Œ.

F I R S T C L A S S.

MINERALS WHICH ARE EMPLOYED FOR
DOMESTIC PURPOSES.

1 For Stone Buildings	607
2 For Mortar	
3 For Roofing	608
4 For Plastering	
5 For Flooring	
6 For Paving	
7 For Land-marks and corner pillars	
8 For repairing Roads	
9 For the Amelioration of arable land and Meadows	609
10 a For Fuel	610
10 b For Blacking Stones	
11 For Flints	
12 For the preparation of Food and Drink	
13 For writing Slates	
14 For Cattle.	

S E C O N D C L A S S.

FOSSILS WHICH ARE WORKED, WROUGHT,
OR IN ANY MANNER EMPLOYED IN MANU-
FACTURES, ARTS OR TRADES 611

4 Q

1 For

	Page
1 For Statuary or Stone-cutting	611
2 For turned or carved works	
3 Polished Stone Work	
4 Fossils employed as Jewels	624
5 For casting in Stucco and Bronzing	
6 For various colours and painting	625
7 For writing and drawing	
8 For Tiles	
9 For Pottery	
10 For Crucibles	
11 For Porcelain	626
12 For Glazing	
13 For colouring Glafs blue	
14 Colours prepared by fire	627
15 For polishing powders	
16 For the detrition of Stones	628
17 For Levigating?	
18 For Mill Stones	
19 For Floors of Stamping Mills?	629
20 For Touch Stones	
21 For smearing Machines	
22 For taking out grease and fulling	
23 For Tanning	
24 For Dying	
25 For Fire Works	630
26 For the Materia Medica	
27 For the Bleaching of Linen	
28 For Cloth and Paper.	

THIRD CLASS

MINERALS FROM WHICH METALS, SALTS, &c. ARE PREPARED.

A. METALS.

1 For obtaining Gold	
2 For obtaining Silver	631
3 For obtaining Mercury	632
4 For obtaining Lead	
5 For obtaining Copper	
6 For obtaining Iron	634
7 For	

INDEX.

667

	Page
7 For producing Tin	636
8 For Zinc and Brass making	
9 Bismuth	637
10 Arsenic	

B. SALTS.

1 Vitriol	
2 Alum	638

FOURTH CLASS.

I. FLUXES.

1 For Copper Smelting	
2 For Iron Smelting	

II. FOR THE CONSTRUCTION OF FURNACES.

1 Examples of good Stone	
2 Examples of indifferent Stone	639

III. MEANS OF FUSION.

667

L. N. D. R.

Page

636

637

638

639

For producing the
For iron and brass making
Bismuth
Antimony

B. SALT
Vitreous
Alum

FOURTH CLASS

I. FLUXES
For Copper Smelting
For Iron Smelting

II. FOR THE CONSTRUCTION OF FURNACES

Examples of good Stone
Examples of inferior Stone

III. MEANS OF FUSION

E R R A T A.

Page. Line.

- | | | |
|-----|----|--|
| 86 | 29 | <i>For paleish grey, read pale greyish.</i> |
| 89 | 15 | <i>Dele the comma after rectangular.</i> |
| 93 | 4 | <i>For brown read brownish.</i> |
| 95 | 33 | <i>Dele the comma after green.</i> |
| 101 | 2 | <i>For PROCELAIN read PORCELAIN.</i> |
| 110 | 29 | <i>For reddish green, read reddish grey.</i> |
| 118 | 19 | <i>Dele the comma after Cochineal.</i> |
| 121 | 11 | <i>Dele partly.</i> |
| 132 | 20 | <i>Dele the comma after colour.</i> |
| 179 | 4 | <i>From the bottom, dele the comma after Spar, and insert one after greyish.</i> |
| 190 | 21 | <i>Insert a semicolon after Quartz.</i> |
| 215 | 3 | <i>For Slate read Shale.</i> |
| 274 | 6 | <i>From the bottom, for tubularly read tabularly.</i> |
| 280 | 10 | <i>For The Cubes, read Cubes.</i> |
| 291 | 26 | <i>Insert the number 2604.</i> |
| 298 | 22 | <i>For small read smalt.</i> |
| 304 | 17 | <i>For hexhæral read hexhædral.</i> |
| 308 | 6 | <i>For No. 275, read 2755.</i> |
| 388 | 13 | <i>For greyish read greenish.</i> |
| 415 | 29 | <i>For break read beak.</i> |
| 523 | 6 | <i>For cemented read precipitated.</i> |
| 534 | 11 | <i>After more insert a comma.</i> |
| 557 | 16 | <i>After Calcareous add Spar.</i> |
| 566 | 12 | <i>For lightly read slightly.</i> |

E. R. A. T. A.

Page	Line	
200	12	For highly and slightly.
227	16	After Calcareous and Spar.
234	11	After more insert a comma.
243	8	For corrected and precipitated.
245	20	For break read break.
288	13	For greyish read greenish.
308	6	For No. 275, read 2755.
304	17	For hexagonal read hexagonal.
298	22	For small read small.
291	26	Insert the number 2004.
280	10	For The Cubes, read Cubes.
274	6	From the bottom, for tubularly read tabularly.
215	3	For Slate read Shale.
190	21	Insert a semicolon after Quartz.
		For one after greyish.
179	4	From the bottom, delete the comma after Spar, and in-
132	20	Delete the comma after colour.
121	11	Delete partly.
118	10	Delete the comma after Cochineal.
110	20	For reddish green, read reddish grey.
101	2	For PROCELIN read PROCELIN.
95	33	Delete the comma after green.
93	4	For brown read brownish.
89	15	Delete the comma after rectangular.
86	20	For paleish grey, read pale greyish.

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